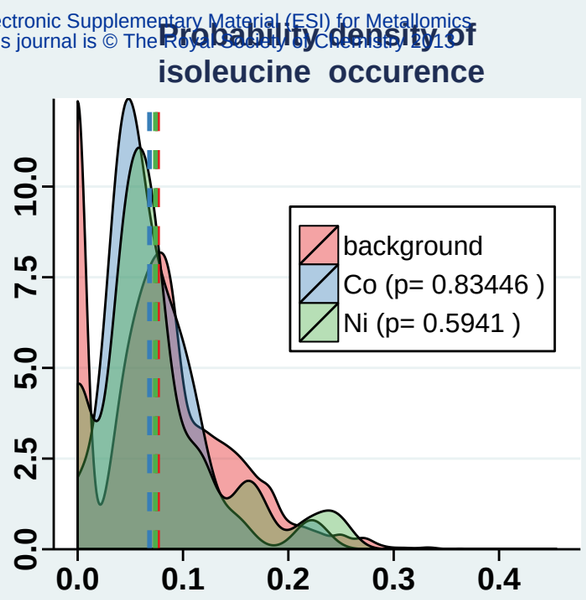


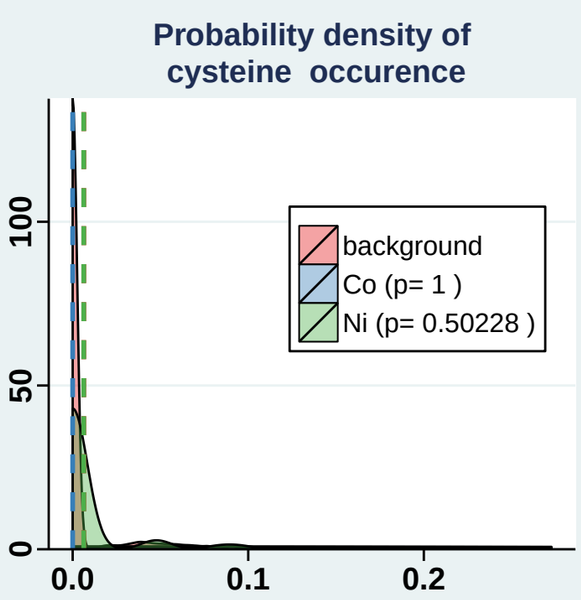


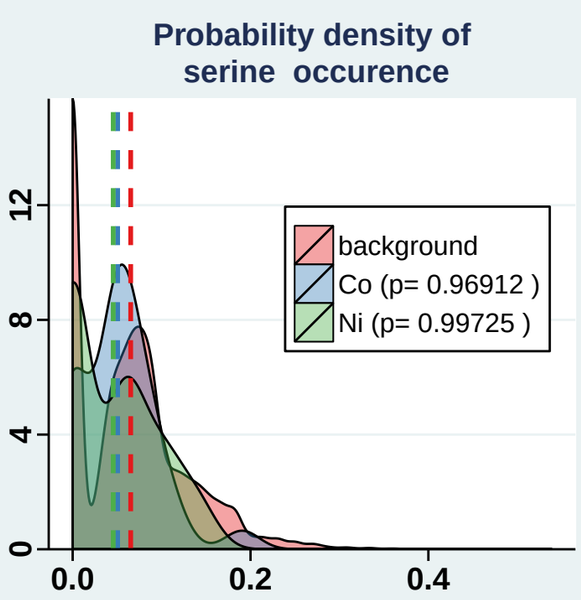


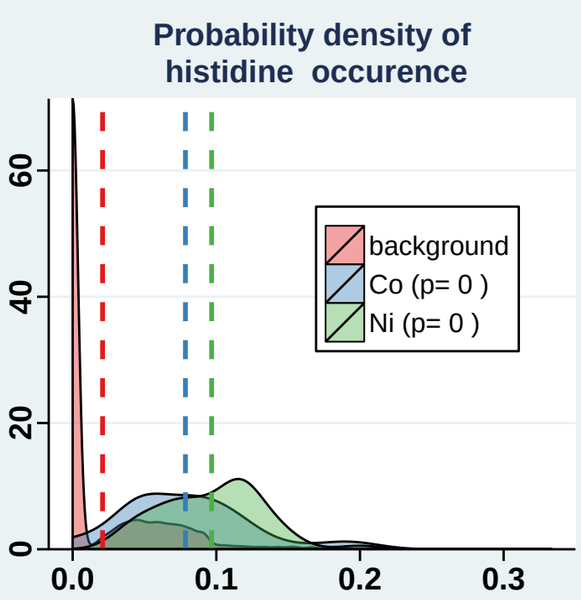


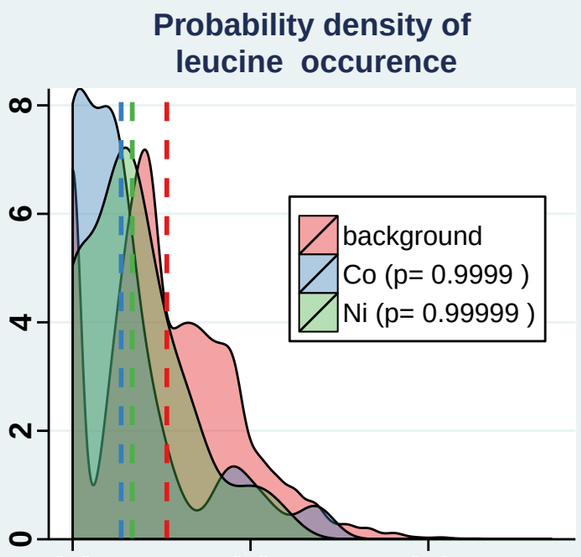


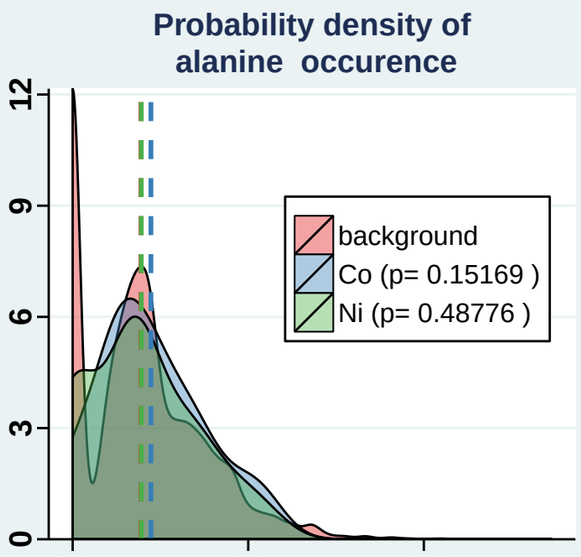


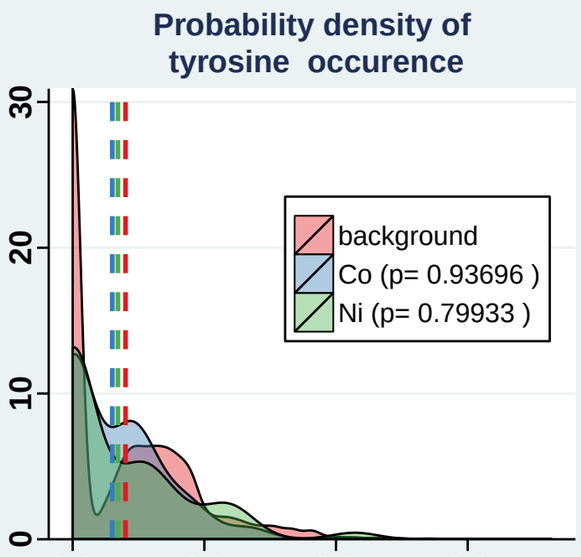


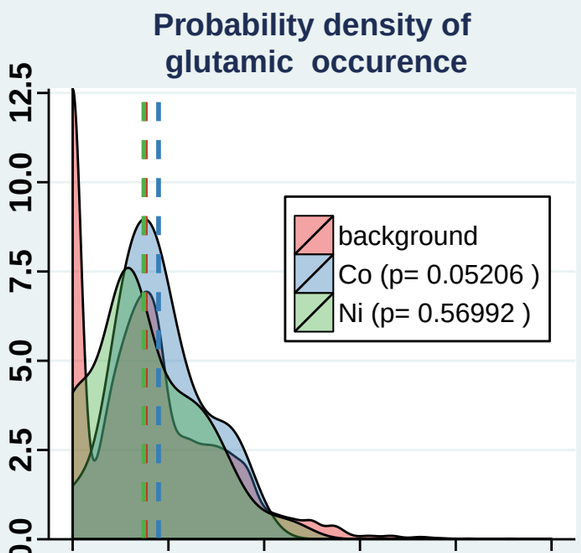


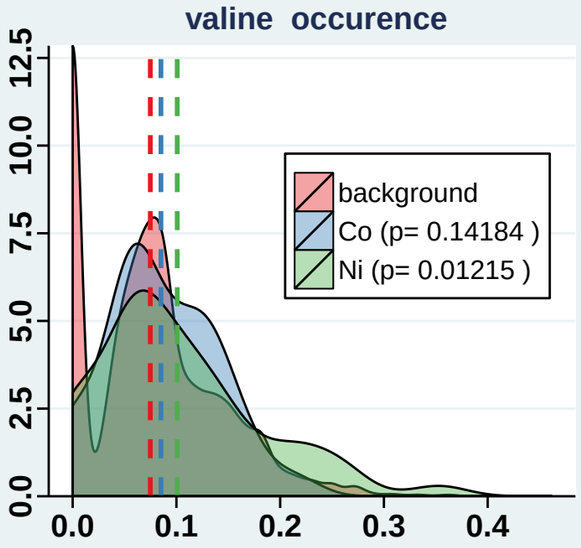


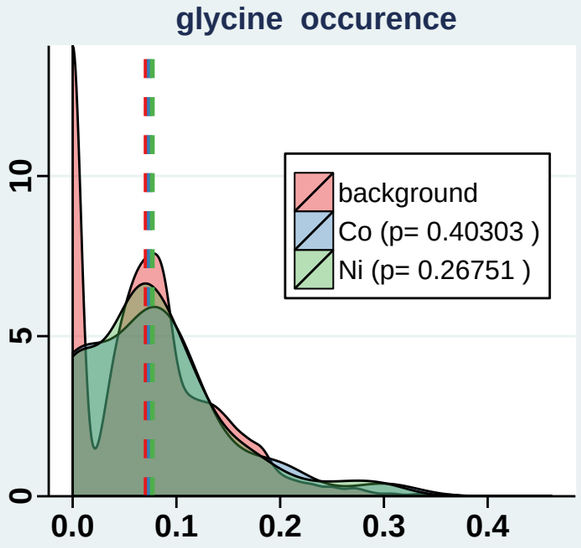


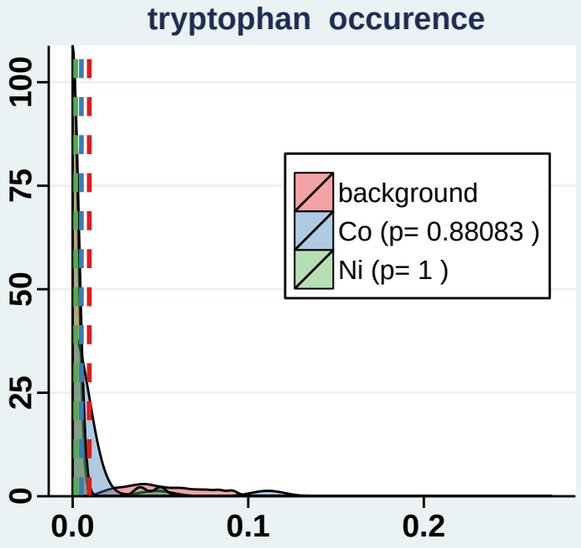


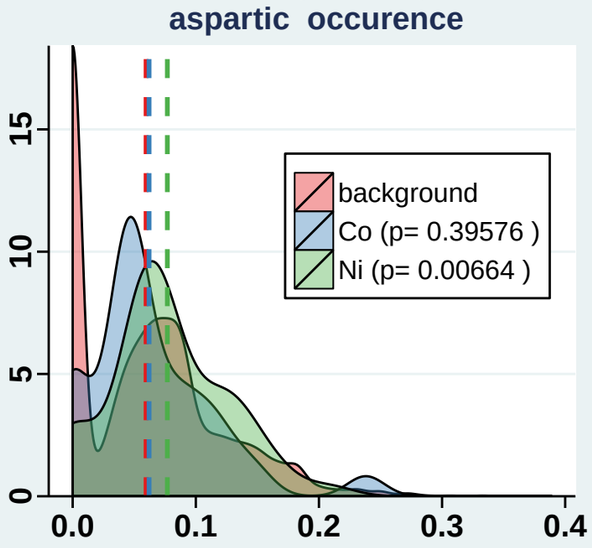


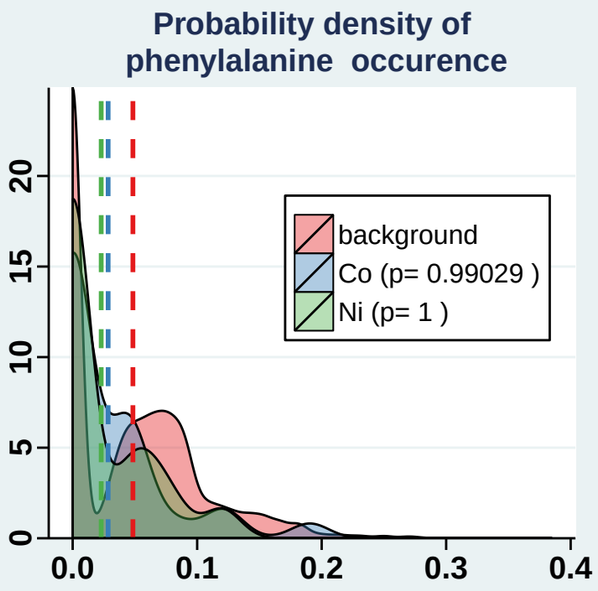


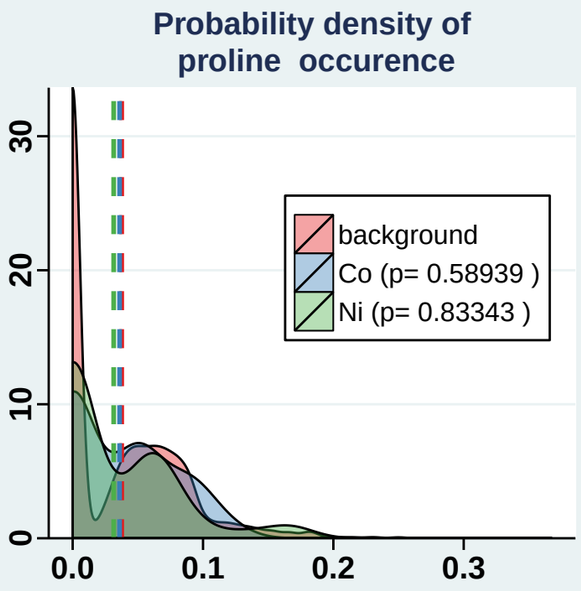


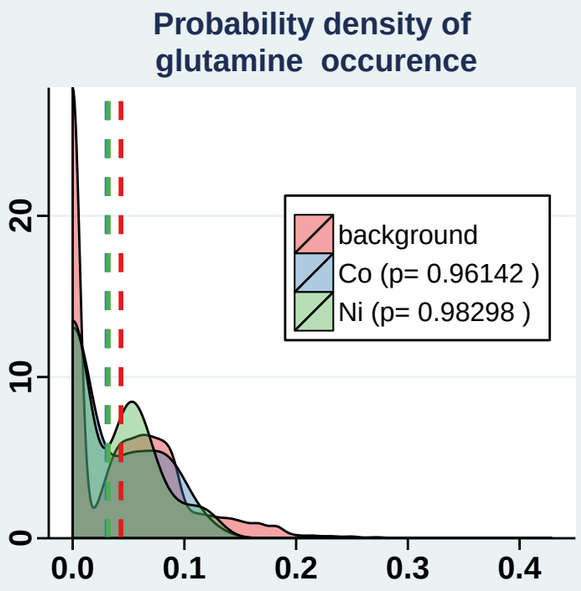


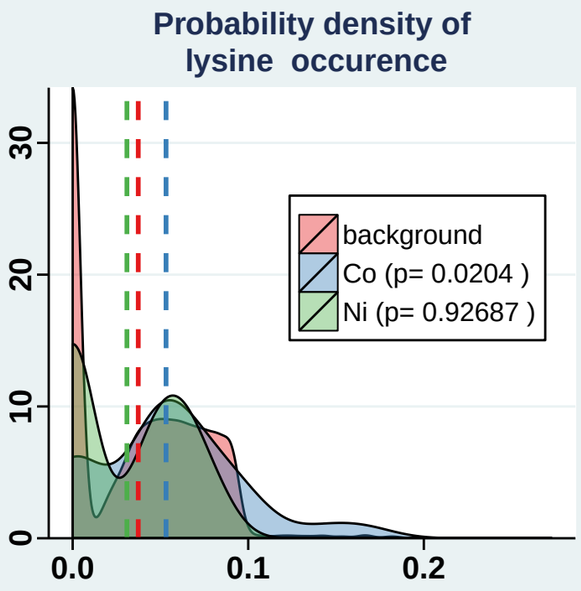


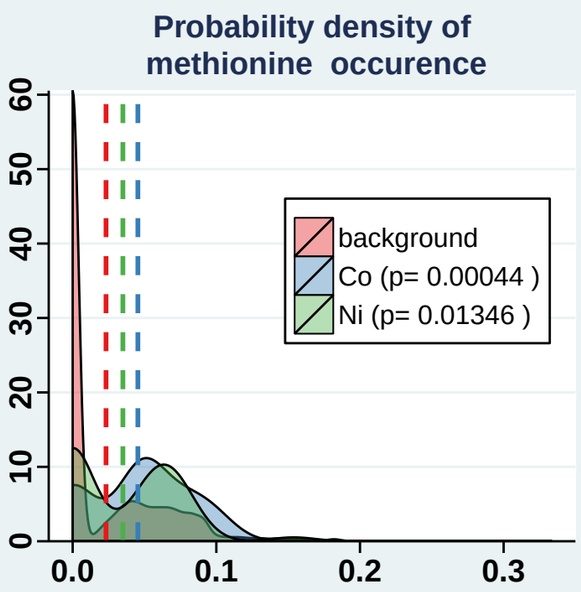


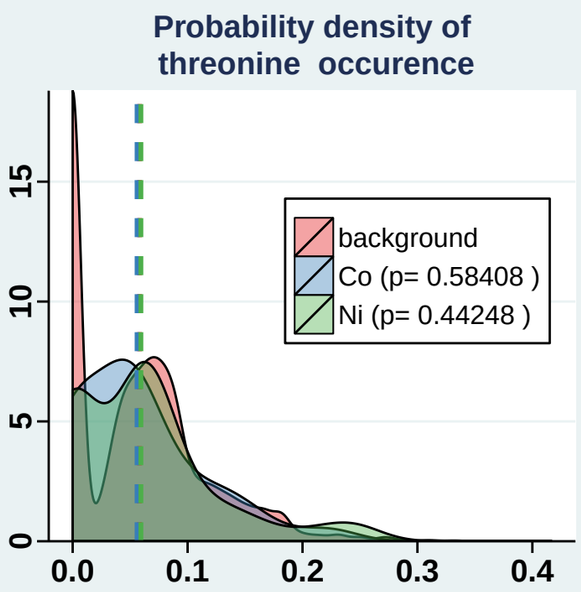


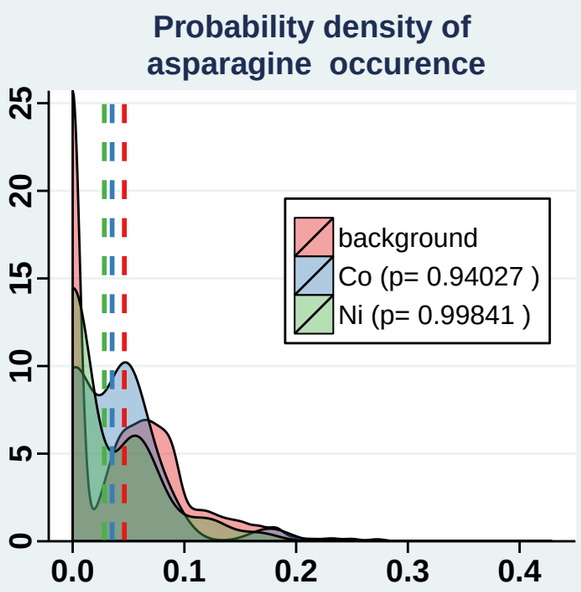


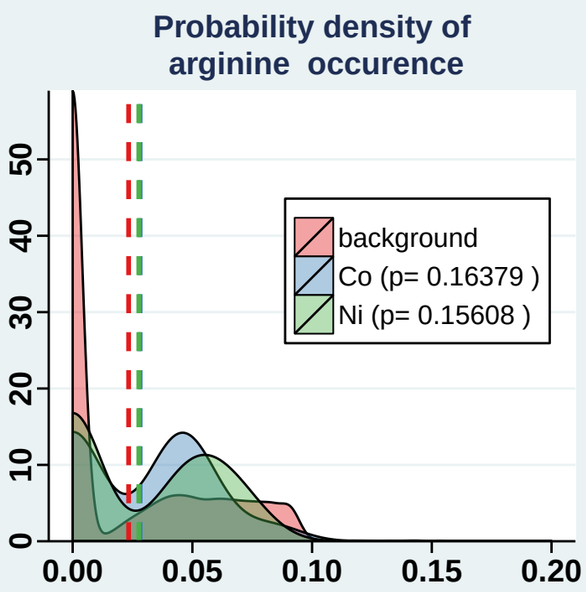

**Comparision of Co- and Ni binding proteins**

| Reference | GeneID | Gene_Symbol | Description | Metal |
|---|---|---|---|---|
| gi\|116075897\|gb\|ABJ53617.1 | 4442664 | | GTP1/Obg family GTP-binding protein [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116075932\|gb\|ABJ53652.1 | 4441156 | tuf | translation elongation factor Tu [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116075934\|gb\|ABJ53654.1 | 4441158 | upp | uracil phosphoribosyltransferase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116075942\|gb\|ABJ53662.1 | 4441166 | rplD | ribosomal protein L4 [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116075958\|gb\|ABJ53678.1 | 4441618 | fabG | 3-oxoacyl-(acyl-carrier-protein) reductase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116075960\|gb\|ABJ53680.1 | 4441620 | murC | UDP-N-acetylmuramate--alanine ligase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116075969\|gb\|ABJ53689.1 | 4442463 | engB | GTP-binding protein [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116075974\|gb\|ABJ53694.1 | 4442468 | rluD | ribosomal large subunit pseudouridine synthase D [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116075978\|gb\|ABJ53698.1 | 4442472 | rpsC | ribosomal protein S3 [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116075984\|gb\|ABJ53704.1 | 4442478 | rex | conserved hypothetical protein [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116075996\|gb\|ABJ53716.1 | 4442490 | | oxidoreductase, pyridine nucleotide-disulfide, class I [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076009\|gb\|ABJ53729.1 | 4441280 | | conserved hypothetical protein [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076010\|gb\|ABJ53730.1 | 4441281 | rplE | ribosomal protein L5 [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076017\|gb\|ABJ53737.1 | 4441288 | rpsK | ribosomal protein S11 [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076029\|gb\|ABJ53749.1 | 4441177 | gnd | 6-phosphogluconate dehydrogenase, decarboxylating [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076037\|gb\|ABJ53757.1 | 4441186 | | cell wall surface anchor family protein [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076039\|gb\|ABJ53759.1 | 4441188 | rpmA | ribosomal protein L27 [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076043\|gb\|ABJ53763.1 | 4442637 | | purine nucleoside phosphorylase, family protein 2 [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076048\|gb\|ABJ53768.1 | 4442642 | bgaA | beta-galactosidase precursor, putative [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076071\|gb\|ABJ53791.1 | 4441305 | rpsE | ribosomal protein S5 [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076101\|gb\|ABJ53821.1 | 4442889 | rpsA | ribosomal protein S1 [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076116\|gb\|ABJ53836.1 | 4442906 | rpe | ribulose-phosphate 3-epimerase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076123\|gb\|ABJ53843.1 | 4442721 | sodA | superoxide dismutase, manganese-dependent [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076125\|gb\|ABJ53845.1 | 4442723 | | conserved hypothetical protein [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076138\|gb\|ABJ53858.1 | 4442872 | accD | acetyl-CoA carboxylase, carboxyl transferase, beta subunit [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076143\|gb\|ABJ53863.1 | 4442877 | metK | S-adenosylmethionine synthetase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076154\|gb\|ABJ53874.1 | 4442888 | | Cof family protein/peptidyl-prolyl cis-trans isomerase, cyclophilin type [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076178\|gb\|ABJ53898.1 | 4442741 | ldh | L-lactate dehydrogenase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076186\|gb\|ABJ53906.1 | 4442749 | pepN | aminopeptidase N [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076189\|gb\|ABJ53909.1 | 4442752 | alaS | alanyl-tRNA synthetase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076214\|gb\|ABJ53934.1 | 4441318 | rplB | ribosomal protein L2 [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076216\|gb\|ABJ53936.1 | 4441320 | accA | acetyl-CoA carboxylase, carboxyl transferase, alpha subunit [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076234\|gb\|ABJ53954.1 | 4441241 | | Uncharacterized BCR, putative [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076308\|gb\|ABJ54028.1 | 4441020 | pnp | polyribonucleotide nucleotidyltransferase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076357\|gb\|ABJ54077.1 | 4441681 | pepV | dipeptidase PepV [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076361\|gb\|ABJ54081.1 | 4441550 | rluB | ribosomal large subunit pseudouridine synthase B [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076391\|gb\|ABJ54111.1 | 4442862 | | non-heme iron-containing ferritin [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076416\|gb\|ABJ54136.1 | 4441531 | | histidine triad protein [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076423\|gb\|ABJ54143.1 | 4441538 | rpmB | ribosomal protein L28 [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076433\|gb\|ABJ54153.1 | 4441549 | ackA | acetate kinase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076436\|gb\|ABJ54156.1 | 4441096 | fba | fructose-1,6-bisphosphate aldolase, class II [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076447\|gb\|ABJ54167.1 | 4441109 | rplR | ribosomal protein L18 [Streptococcus pneumoniae D39] | Co/Ni |

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|---|---|---|---|---|
| gi\|116076452\|gb\|ABJ54172.1 | 4441373 | pspA | pneumococcal surface protein A [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076453\|gb\|ABJ54173.1 | 4441374 | adk | adenylate kinase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076455\|gb\|ABJ54175.1 | 4441376 | engA | phosphoglycerate dehydrogenase-related protein [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076459\|gb\|ABJ54179.1 | 4441380 | ptsI | phosphoenolpyruvate-protein phosphotransferase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076462\|gb\|ABJ54182.1 | 4441384 | | alcohol dehydrogenase, iron-containing [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076484\|gb\|ABJ54204.1 | 4442788 | | general stress protein 24, putative [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076488\|gb\|ABJ54208.1 | 4441055 | rfbD | dTDP-4-dehydrorhamnose reductase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076508\|gb\|ABJ54228.1 | 4441334 | | phosphatase, putative [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076518\|gb\|ABJ54238.1 | 4441344 | ileS | isoleucyl-tRNA synthetase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076541\|gb\|ABJ54261.1 | 4441407 | guaB | inosine-5'-monophosphate dehydrogenase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076544\|gb\|ABJ54264.1 | 4441410 | clpL | ATP-dependent Clp protease, ATP-binding subunit [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076573\|gb\|ABJ54293.1 | 4441501 | pfkA | 6-phosphofructokinase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076627\|gb\|ABJ54347.1 | 4442760 | cps2L | glucose-1-phosphate thymidylyltransferase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076631\|gb\|ABJ54351.1 | 4442764 | tyrS | tyrosyl-tRNA synthetase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076635\|gb\|ABJ54355.1 | 4442768 | fabF | 3-oxoacyl-[acyl-carrier-protein] synthase II [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076649\|gb\|ABJ54369.1 | 4442530 | nrdE | ribonucleoside-diphosphate reductase, alpha subunit [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076686\|gb\|ABJ54406.1 | 4441635 | def | peptide deformylase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076688\|gb\|ABJ54408.1 | 4441637 | rpsS | ribosomal protein S19 [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076695\|gb\|ABJ54415.1 | 4441644 | spxB | pyruvate oxidase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076699\|gb\|ABJ54419.1 | 4442210 | pepQ | proline dipeptidase PepQ [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076723\|gb\|ABJ54443.1 | 4442509 | phtD | pneumococcal histidine triad protein D precursor [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076747\|gb\|ABJ54467.1 | 4442845 | rplM | ribosomal protein L13 [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076748\|gb\|ABJ54468.1 | 4442846 | glmU | UDP-N-acetylglucosamine pyrophosphorylase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076761\|gb\|ABJ54481.1 | 4441142 | rplS | ribosomal protein L19 [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076768\|gb\|ABJ54488.1 | 4441150 | galU | UTP-glucose-1-phosphate uridylyltransferase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076777\|gb\|ABJ54497.1 | 4441461 | pepA | glutamyl aminopeptidase PepA [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076809\|gb\|ABJ54529.1 | 4441513 | nagA | N-acetylglucosamine-6-phosphate deacetylase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076851\|gb\|ABJ54571.1 | 4442603 | recA | recA protein [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076859\|gb\|ABJ54579.1 | 4442611 | ftsZ | cell division protein FtsZ [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076888\|gb\|ABJ54608.1 | 4442795 | | oxidoreductase, aldo/keto reductase family protein [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076912\|gb\|ABJ54632.1 | 4442819 | galE-1 | UDP-glucose 4-epimerase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116076924\|gb\|ABJ54644.1 | 4442950 | deoB | phosphopentomutase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077018\|gb\|ABJ54738.1 | 4442561 | gap | glyceraldehyde-3-phosphate dehydrogenase, type I [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077043\|gb\|ABJ54763.1 | 4442937 | | serine/threonine protein phosphatase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077095\|gb\|ABJ54815.1 | 4443070 | | alcohol dehydrogenase, zinc-containing [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077115\|gb\|ABJ54835.1 | 4441042 | argS | arginyl-tRNA synthetase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077121\|gb\|ABJ54841.1 | 4441049 | rplT | ribosomal protein L20 [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077141\|gb\|ABJ54861.1 | 4441270 | ilvD | dihydroxy-acid dehydratase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077157\|gb\|ABJ54877.1 | 4442104 | rpsD | ribosomal protein S4 [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077161\|gb\|ABJ54881.1 | 4442109 | pgk | phosphoglycerate kinase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077164\|gb\|ABJ54884.1 | 4441217 | infB | initiation factor IF-2 [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077170\|gb\|ABJ54890.1 | 4441223 | cbf1 | cmp-binding-factor 1 [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077175\|gb\|ABJ54895.1 | 4441229 | lacF-2 | PTS system, lactose-specific IIA component [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077185\|gb\|ABJ54905.1 | 4442386 | prsA | ribose-phosphate pyrophosphokinase [Streptococcus pneumoniae D39] | Co/Ni |

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|---|---|---|---|---|
| gi\|116077186\|gb\|ABJ54906.1 | 4442387 | pgi | glucose-6-phosphate isomerase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077197\|gb\|ABJ54917.1 | 4442399 | rplL | ribosomal protein L7/L12 [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077203\|gb\|ABJ54923.1 | 4441415 | | conserved hypothetical protein TIGR01440 [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077211\|gb\|ABJ54931.1 | 4441424 | adcR | adc operon repressor AdcR [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077226\|gb\|ABJ54946.1 | 4443054 | rplJ | ribosomal protein L10 [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077237\|gb\|ABJ54957.1 | 4442440 | gpmA | phosphoglycerate mutase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077239\|gb\|ABJ54959.1 | 4442442 | rpsJ | ribosomal protein S10 [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077245\|gb\|ABJ54965.1 | 4442449 | nox | NADH oxidase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077263\|gb\|ABJ54983.1 | 4441361 | pyrDa | dihydroorotate dehydrogenase A [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077275\|gb\|ABJ54995.1 | 4442325 | rnz | ribonuclease Z [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077283\|gb\|ABJ55003.1 | 4442333 | | conserved hypothetical protein [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077289\|gb\|ABJ55009.1 | 4442339 | ptsH | phosphocarrier protein HPr [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077301\|gb\|ABJ55021.1 | 4442313 | rplC | ribosomal protein L3 [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077322\|gb\|ABJ55042.1 | 4442296 | | iron-dependent transcriptional regulator [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077328\|gb\|ABJ55048.1 | 4442302 | fusA | translation elongation factor G [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077331\|gb\|ABJ55051.1 | 4442266 | tig | trigger factor [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077338\|gb\|ABJ55058.1 | 4442273 | era | GTP-binding protein Era [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077344\|gb\|ABJ55064.1 | 4442279 | eno | phosphopyruvate hydratase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077353\|gb\|ABJ55073.1 | 4442230 | lytA | autolysin/N-acetylmuramoyl-L-alanine amidase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077356\|gb\|ABJ55076.1 | 4442233 | trx | thioredoxin [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077388\|gb\|ABJ55108.1 | 4442169 | rfbB | dTDP-glucose 4,6-dehydratase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077405\|gb\|ABJ55125.1 | 4442186 | dnaJ | chaperone protein DnaJ [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077446\|gb\|ABJ55166.1 | 4442113 | pyk | pyruvate kinase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077493\|gb\|ABJ55213.1 | 4442066 | rpsG | ribosomal protein S7 [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077503\|gb\|ABJ55223.1 | 4442040 | | endo-beta-N-acetylglucosaminidase, putative [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077516\|gb\|ABJ55236.1 | 4442016 | rplF | ribosomal protein L6 [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077522\|gb\|ABJ55242.1 | 4442022 | gltX | glutamyl-tRNA synthetase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077527\|gb\|ABJ55247.1 | 4442029 | | probable membrane lipoprotein TmpC precursor [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077548\|gb\|ABJ55268.1 | 4442925 | prtA | cell wall-associated serine protease PrtA [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077560\|gb\|ABJ55280.1 | 4442004 | | protein jag (SpoIIIJ-associated protein ), putative [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077568\|gb\|ABJ55288.1 | 4442013 | | conserved hypothetical protein [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077571\|gb\|ABJ55291.1 | 4441977 | gpsA | (NAD(P)+) glycerol-3-phosphate dehydrogenase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077580\|gb\|ABJ55300.1 | 4441988 | phpA | pneumococcal histidine triad protein A precursor [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077618\|gb\|ABJ55338.1 | 4442356 | strH | beta-N-acetylhexosaminidase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077673\|gb\|ABJ55393.1 | 4441908 | | alcohol dehydrogenase, zinc-containing [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077678\|gb\|ABJ55398.1 | 4441913 | pepO | endopeptidase O [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077703\|gb\|ABJ55423.1 | 4442365 | clpX | ATP-dependent Clp protease, ATP-binding subunit ClpX [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077704\|gb\|ABJ55424.1 | 4442366 | rpsB | ribosomal protein S2 [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077705\|gb\|ABJ55425.1 | 4442367 | lacB | galactose-6-phosphate isomerase, LacB subunit [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077715\|gb\|ABJ55435.1 | 4442377 | | conserved hypothetical protein [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077726\|gb\|ABJ55446.1 | 4441864 | rpsO | ribosomal protein S15 [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077764\|gb\|ABJ55484.1 | 4441825 | pflB | formate acetyltransferase [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116077772\|gb\|ABJ55492.1 | 4441833 | rplV | ribosomal protein L22 [Streptococcus pneumoniae D39] | Co/Ni |
| gi\|116075911\|gb\|ABJ53631.1 | 4441077 | rplI | ribosomal protein L9 [Streptococcus pneumoniae D39] | Co |

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|---|---|---|---|---|
| gi\|116075921\|gb\|ABJ53641.1 | 4441087 | | acetyltransferase, GNAT family protein [Streptococcus pneumoniae D39] | Co |
| gi\|116075945\|gb\|ABJ53665.1 | 4441169 | | conserved hypothetical protein TIGR00488 [Streptococcus pneumoniae D39] | Co |
| gi\|116075961\|gb\|ABJ53681.1 | 4441621 | rplO | ribosomal protein L15 [Streptococcus pneumoniae D39] | Co |
| gi\|116076022\|gb\|ABJ53742.1 | 4441293 | | GTP-binding protein [Streptococcus pneumoniae D39] | Co |
| gi\|116076023\|gb\|ABJ53743.1 | 4441294 | rplQ | ribosomal protein L17 [Streptococcus pneumoniae D39] | Co |
| gi\|116076102\|gb\|ABJ53822.1 | 4442890 | sepF | YlmF protein [Streptococcus pneumoniae D39] | Co |
| gi\|116076129\|gb\|ABJ53849.1 | 4442727 | | iojap-related protein [Streptococcus pneumoniae D39] | Co |
| gi\|116076187\|gb\|ABJ53907.1 | 4442750 | | conserved hypothetical protein [Streptococcus pneumoniae D39] | Co |
| gi\|116076227\|gb\|ABJ53947.1 | 4441332 | ffh | signal recognition particle protein [Streptococcus pneumoniae D39] | Co |
| gi\|116076256\|gb\|ABJ53976.1 | 4442546 | rpsT | ribosomal protein S20 [Streptococcus pneumoniae D39] | Co |
| gi\|116076270\|gb\|ABJ53990.1 | 4441435 | | CBS domain protein [Streptococcus pneumoniae D39] | Co |
| gi\|116076281\|gb\|ABJ54001.1 | 4441447 | rpsH | ribosomal protein S8 [Streptococcus pneumoniae D39] | Co |
| gi\|116076328\|gb\|ABJ54048.1 | 4442407 | pdxS | pyridoxine biosynthesis protein [Streptococcus pneumoniae D39] | Co |
| gi\|116076333\|gb\|ABJ54053.1 | 4442412 | murF | UDP-N-acetylmuramoylalanyl-D-glutamyl-2, 6-diaminopimelate--D-alanyl-D-alanyl ligase [Streptococcus pneumoniae D39] | Co |
| gi\|116076338\|gb\|ABJ54058.1 | 4442418 | murD | UDP-N-acetylmuramoylalanine--D-glutamate ligase [Streptococcus pneumoniae D39] | Co |
| gi\|116076340\|gb\|ABJ54060.1 | 4442420 | rpmE2 | ribosomal protein L31 [Streptococcus pneumoniae D39] | Co |
| gi\|116076369\|gb\|ABJ54089.1 | 4441558 | nadE | NAD+ synthetase [Streptococcus pneumoniae D39] | Co |
| gi\|116076398\|gb\|ABJ54118.1 | 4441113 | | conserved hypothetical protein [Streptococcus pneumoniae D39] | Co |
| gi\|116076406\|gb\|ABJ54126.1 | 4441121 | rplW | ribosomal protein L23 [Streptococcus pneumoniae D39] | Co |
| gi\|116076410\|gb\|ABJ54130.1 | 4441125 | nadD | nicotinate (nicotinamide) nucleotide adenylyltransferase [Streptococcus pneumoniae D39] | Co |
| gi\|116076434\|gb\|ABJ54154.1 | 4441094 | | ABC transporter, ATP-binding protein [Streptococcus pneumoniae D39] | Co |
| gi\|116076437\|gb\|ABJ54157.1 | 4441097 | pepT | peptidase T [Streptococcus pneumoniae D39] | Co |
| gi\|116076466\|gb\|ABJ54186.1 | 4441388 | lacA | galactose-6-phosphate isomerase, LacA subunit [Streptococcus pneumoniae D39] | Co |
| gi\|116076509\|gb\|ABJ54229.1 | 4441335 | divIVA | cell division protein DivIVA [Streptococcus pneumoniae D39] | Co |
| gi\|116076548\|gb\|ABJ54268.1 | 4442423 | | ABC transporter, ATP-binding protein [Streptococcus pneumoniae D39] | Co |
| gi\|116076549\|gb\|ABJ54269.1 | 4442424 | | ABC transporter, substrate binding lipoprotein [Streptococcus pneumoniae D39] | Co |
| gi\|116076605\|gb\|ABJ54325.1 | 4441689 | rpsP | ribosomal protein S16 [Streptococcus pneumoniae D39] | Co |
| gi\|116076615\|gb\|ABJ54335.1 | 4441699 | lacC | tagatose-6-phosphate kinase [Streptococcus pneumoniae D39] | Co |
| gi\|116076623\|gb\|ABJ54343.1 | 4442756 | rpsM | ribosomal protein S13 [Streptococcus pneumoniae D39] | Co |
| gi\|116076626\|gb\|ABJ54346.1 | 4442759 | rplX | ribosomal protein L24 [Streptococcus pneumoniae D39] | Co |
| gi\|116076652\|gb\|ABJ54372.1 | 4442533 | tsf | translation elongation factor Ts [Streptococcus pneumoniae D39] | Co |
| gi\|116076690\|gb\|ABJ54410.1 | 4441639 | | NADPH-dependent FMN reductase [Streptococcus pneumoniae D39] | Co |
| gi\|116076713\|gb\|ABJ54433.1 | 4442499 | aspS | aspartyl-tRNA synthetase [Streptococcus pneumoniae D39] | Co |
| gi\|116076721\|gb\|ABJ54441.1 | 4442507 | | PTS system IIA component, putative [Streptococcus pneumoniae D39] | Co |
| gi\|116076724\|gb\|ABJ54444.1 | 4442510 | | PTS system, IIB component, putative [Streptococcus pneumoniae D39] | Co |
| gi\|116076725\|gb\|ABJ54445.1 | 4442511 | | PTS system, IIB component [Streptococcus pneumoniae D39] | Co |
| gi\|116076781\|gb\|ABJ54501.1 | 4441465 | hup | DNA-binding protein HU [Streptococcus pneumoniae D39] | Co |
| gi\|116076798\|gb\|ABJ54518.1 | 4441482 | nagB | glucosamine-6-phosphate isomerase [Streptococcus pneumoniae D39] | Co |
| gi\|116076853\|gb\|ABJ54573.1 | 4442605 | manA | mannose-6-phosphate isomerase, class I [Streptococcus pneumoniae D39] | Co |
| gi\|116076869\|gb\|ABJ54589.1 | 4442582 | rpoA | DNA-directed RNA polymerase, alpha subunit [Streptococcus pneumoniae D39] | Co |
| gi\|116076886\|gb\|ABJ54606.1 | 4442793 | clpE | ATP-dependent Clp protease ATP-binding subunit ClpE [Streptococcus pneumoniae D39] | Co |
| gi\|116076939\|gb\|ABJ54659.1 | 4442965 | msrAB1 | peptide methionine sulfoxide reductase msrA/msrB 1 [Streptococcus pneumoniae D39] | Co |
| gi\|116076944\|gb\|ABJ54664.1 | 4443030 | lacD | tagatose 1,6-diphosphate aldolase [Streptococcus pneumoniae D39] | Co |
| gi\|116076953\|gb\|ABJ54673.1 | 4443040 | | Hit-like protein involved in cell-cycle regulation, putative [Streptococcus pneumoniae D39] | Co |

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|---|---|---|---|---|
| gi\|116076969\|gb\|ABJ54689.1 | 4441600 | | conserved hypothetical protein [Streptococcus pneumoniae D39] | Co |
| gi\|116076998\|gb\|ABJ54718.1 | 4441648 | glmM | phosphoglucomutase/phosphomannomutase family protein [Streptococcus pneumoniae D39] | Co |
| gi\|116077069\|gb\|ABJ54789.1 | 4443023 | | endoribonuclease L-PSP [Streptococcus pneumoniae D39] | Co |
| gi\|116077102\|gb\|ABJ54822.1 | 4443077 | map | methionine aminopeptidase, type I [Streptococcus pneumoniae D39] | Co |
| gi\|116077214\|gb\|ABJ54934.1 | 4441427 | rpoD | RNA polymerase sigma-70 factor [Streptococcus pneumoniae D39] | Co |
| gi\|116077228\|gb\|ABJ54948.1 | 4443056 | pepS | aminopeptidase PepS [Streptococcus pneumoniae D39] | Co |
| gi\|116077233\|gb\|ABJ54953.1 | 4443061 | bta | bacterocin transport accessory protein [Streptococcus pneumoniae D39] | Co |
| gi\|116077279\|gb\|ABJ54999.1 | 4442329 | | hydrolase, haloacid dehalogenase-like family protein [Streptococcus pneumoniae D39] | Co |
| gi\|116077316\|gb\|ABJ55036.1 | 4442290 | rpsF | ribosomal protein S6 [Streptococcus pneumoniae D39] | Co |
| gi\|116077323\|gb\|ABJ55043.1 | 4442297 | rplU | ribosomal protein L21 [Streptococcus pneumoniae D39] | Co |
| gi\|116077339\|gb\|ABJ55059.1 | 4442274 | thrC | threonine synthase [Streptococcus pneumoniae D39] | Co |
| gi\|116077365\|gb\|ABJ55085.1 | 4442242 | | phosphodiesterase, MJ0936 family protein [Streptococcus pneumoniae D39] | Co |
| gi\|116077374\|gb\|ABJ55094.1 | 4442193 | tpiA | triosephosphate isomerase [Streptococcus pneumoniae D39] | Co |
| gi\|116077375\|gb\|ABJ55095.1 | 4442194 | | conserved hypothetical protein [Streptococcus pneumoniae D39] | Co |
| gi\|116077401\|gb\|ABJ55121.1 | 4442182 | ppaC | manganese-dependent inorganic pyrophosphatase, putative [Streptococcus pneumoniae D39] | Co |
| gi\|116077422\|gb\|ABJ55142.1 | 4442166 | acpP | acyl carrier protein [Streptococcus pneumoniae D39] | Co |
| gi\|116077484\|gb\|ABJ55204.1 | 4442056 | rpmG | ribosomal protein L33 [Streptococcus pneumoniae D39] | Co |
| gi\|116077494\|gb\|ABJ55214.1 | 4442067 | yfiA | ribosomal subunit interface protein [Streptococcus pneumoniae D39] | Co |
| gi\|116077498\|gb\|ABJ55218.1 | 4442033 | | Cof family protein [Streptococcus pneumoniae D39] | Co |
| gi\|116077509\|gb\|ABJ55229.1 | 4442048 | | nitroreductase family protein [Streptococcus pneumoniae D39] | Co |
| gi\|116077518\|gb\|ABJ55238.1 | 4442018 | ndk | nucleoside diphosphate kinase [Streptococcus pneumoniae D39] | Co |
| gi\|116077542\|gb\|ABJ55262.1 | 4442919 | folA | dihydrofolate reductase [Streptococcus pneumoniae D39] | Co |
| gi\|116077641\|gb\|ABJ55361.1 | 4441953 | aroD | 3-dehydroquinate dehydratase, type I [Streptococcus pneumoniae D39] | Co |
| gi\|116077645\|gb\|ABJ55365.1 | 4441918 | grpE | heat shock protein GrpE [Streptococcus pneumoniae D39] | Co |
| gi\|116077679\|gb\|ABJ55399.1 | 4441914 | ispD | 2-C-methyl-D-erythritol 4-phosphate cytidylyltransferase [Streptococcus pneumoniae D39] | Co |
| gi\|116077680\|gb\|ABJ55400.1 | 4441915 | pheT | phenylalanyl-tRNA synthetase, beta subunit [Streptococcus pneumoniae D39] | Co |
| gi\|116077681\|gb\|ABJ55401.1 | 4441916 | rpsI | ribosomal protein S9 [Streptococcus pneumoniae D39] | Co |
| gi\|116077684\|gb\|ABJ55404.1 | 4441880 | | conserved hypothetical protein [Streptococcus pneumoniae D39] | Co |
| gi\|116077717\|gb\|ABJ55437.1 | 4442379 | nanA | sialidase A precursor [Streptococcus pneumoniae D39] | Co |
| gi\|116077735\|gb\|ABJ55455.1 | 4441873 | | transcriptional regulator, MerR family protein [Streptococcus pneumoniae D39] | Co |
| gi\|116077748\|gb\|ABJ55468.1 | 4441847 | malX | maltose/maltodextrin ABC transporter, maltose/maltodextrin-binding protein [Streptococcus pneumoniae D39] | Co |
| gi\|116077761\|gb\|ABJ55481.1 | 4441822 | cps2M | dTDP-4-dehydrorhamnose 3,5-epimerase, putative [Streptococcus pneumoniae D39] | Co |
| gi\|116077765\|gb\|ABJ55485.1 | 4441826 | cysS | cysteinyl-tRNA synthetase [Streptococcus pneumoniae D39] | Co |
| gi\|116077776\|gb\|ABJ55496.1 | 4441837 | arcC | carbamate kinase [Streptococcus pneumoniae D39] | Co |
| gi\|116075914\|gb\|ABJ53634.1 | 4441080 | thrS | threonyl-tRNA synthetase [Streptococcus pneumoniae D39] | Ni |
| gi\|116075931\|gb\|ABJ53651.1 | 4441155 | amiA | oligopeptide ABC transporter, oligopeptide-binding protein AmiA [Streptococcus pneumoniae D39] | Ni |
| gi\|116075938\|gb\|ABJ53658.1 | 4441162 | pulA | pullulanase, type I [Streptococcus pneumoniae D39] | Ni |
| gi\|116075952\|gb\|ABJ53672.1 | 4441611 | ply | pneumolysin [Streptococcus pneumoniae D39] | Ni |
| gi\|116075986\|gb\|ABJ53706.1 | 4442480 | secA | preprotein translocase, SecA subunit [Streptococcus pneumoniae D39] | Ni |
| gi\|116076082\|gb\|ABJ53802.1 | 4442987 | NA | sugar ABC transporter, ATP-binding protein [Streptococcus pneumoniae D39] | Ni |
| gi\|116076091\|gb\|ABJ53811.1 | 4442996 | tgt | queuine tRNA-ribosyltransferase [Streptococcus pneumoniae D39] | Ni |
| gi\|116076141\|gb\|ABJ53861.1 | 4442875 | lacR1 | lactose phosphotransferase system repressor [Streptococcus pneumoniae D39] | Ni |
| gi\|116076157\|gb\|ABJ53877.1 | 4441199 | pyrG | CTP synthase [Streptococcus pneumoniae D39] | Ni |
| gi\|116076180\|gb\|ABJ53900.1 | 4442743 | pgm | phosphoglucomutase/phosphomannomutase family protein [Streptococcus pneumoniae D39] | Ni |

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|---|---|---|---|---|
| gi\|116076200\|gb\|ABJ53920.1 | 4442704 | dapB | dihydrodipicolinate reductase [Streptococcus pneumoniae D39] | Ni |
| gi\|116076203\|gb\|ABJ53923.1 | 4442707 | rplP | ribosomal protein L16 [Streptococcus pneumoniae D39] | Ni |
| gi\|116076211\|gb\|ABJ53931.1 | 4441315 | asnS | asparaginyl-tRNA synthetase [Streptococcus pneumoniae D39] | Ni |
| gi\|116076250\|gb\|ABJ53970.1 | 4442540 | sufB | FeS assembly protein SufB [Streptococcus pneumoniae D39] | Ni |
| gi\|116076280\|gb\|ABJ54000.1 | 4441446 | rplA | ribosomal protein L1 [Streptococcus pneumoniae D39] | Ni |
| gi\|116076282\|gb\|ABJ54002.1 | 4441448 | NA | ABC transporter, ATP-binding protein [Streptococcus pneumoniae D39] | Ni |
| gi\|116076284\|gb\|ABJ54004.1 | 4441450 | pyrR | pyrimidine operon regulatory protein/uracil phosphoribosyltransferase [Streptococcus pneumoniae D39] | Ni |
| gi\|116076292\|gb\|ABJ54012.1 | 4442253 | rplK | ribosomal protein L11 [Streptococcus pneumoniae D39] | Ni |
| gi\|116076300\|gb\|ABJ54020.1 | 4442262 | rpoC | DNA-directed RNA polymerase, beta' subunit [Streptococcus pneumoniae D39] | Ni |
| gi\|116076305\|gb\|ABJ54025.1 | 4441017 | tkt | transketolase [Streptococcus pneumoniae D39] | Ni |
| gi\|116076325\|gb\|ABJ54045.1 | 4442404 | codY | GTP-sensing transcriptional pleiotropic repressor CodY [Streptococcus pneumoniae D39] | Ni |
| gi\|116076348\|gb\|ABJ54068.1 | 4441672 | purA | adenylosuccinate synthetase [Streptococcus pneumoniae D39] | Ni |
| gi\|116076360\|gb\|ABJ54080.1 | 4441684 | asnA | aspartate--ammonia ligase [Streptococcus pneumoniae D39] | Ni |
| gi\|116076371\|gb\|ABJ54091.1 | 4441560 | NA | conserved hypothetical protein [Streptococcus pneumoniae D39] | Ni |
| gi\|116076385\|gb\|ABJ54105.1 | 4442856 | NA | phosphate transport system regulatory protein PhoU, putative [Streptococcus pneumoniae D39] | Ni |
| gi\|116076401\|gb\|ABJ54121.1 | 4441116 | NA | Rrf2 family protein [Streptococcus pneumoniae D39] | Ni |
| gi\|116076405\|gb\|ABJ54125.1 | 4441120 | NA | conserved hypothetical protein [Streptococcus pneumoniae D39] | Ni |
| gi\|116076457\|gb\|ABJ54177.1 | 4441378 | pncB | nicotinate phosphoribosyltransferase, putative [Streptococcus pneumoniae D39] | Ni |
| gi\|116076465\|gb\|ABJ54185.1 | 4441387 | aroA | 3-phosphoshikimate 1-carboxyvinyltransferase [Streptococcus pneumoniae D39] | Ni |
| gi\|116076504\|gb\|ABJ54224.1 | 4441071 | accC | acetyl-CoA carboxylase, biotin carboxylase [Streptococcus pneumoniae D39] | Ni |
| gi\|116076527\|gb\|ABJ54247.1 | 4441392 | NA | transcriptional regulator, GntR family protein [Streptococcus pneumoniae D39] | Ni |
| gi\|116076534\|gb\|ABJ54254.1 | 4441399 | malP | maltodextrin phosphorylase [Streptococcus pneumoniae D39] | Ni |
| gi\|116076539\|gb\|ABJ54259.1 | 4441404 | proS | prolyl-tRNA synthetase [Streptococcus pneumoniae D39] | Ni |
| gi\|116076593\|gb\|ABJ54313.1 | 4441579 | aroC | chorismate synthase [Streptococcus pneumoniae D39] | Ni |
| gi\|116076603\|gb\|ABJ54323.1 | 4441687 | NA | transcriptional regulator, MarR family protein [Streptococcus pneumoniae D39] | Ni |
| gi\|116076609\|gb\|ABJ54329.1 | 4441693 | cps2K | UDP-glucose 6-dehydrogenase, putative [Streptococcus pneumoniae D39] | Ni |
| gi\|116076616\|gb\|ABJ54336.1 | 4441700 | ppc | phosphoenolpyruvate carboxylase [Streptococcus pneumoniae D39] | Ni |
| gi\|116076645\|gb\|ABJ54365.1 | 4442525 | NA | ATP-dependent Clp protease, ATP-binding subunit [Streptococcus pneumoniae D39] | Ni |
| gi\|116076660\|gb\|ABJ54380.1 | 4442678 | NA | metallo-beta-lactamase superfamily protein [Streptococcus pneumoniae D39] | Ni |
| gi\|116076666\|gb\|ABJ54386.1 | 4442684 | glnA | glutamine synthetase, type I [Streptococcus pneumoniae D39] | Ni |
| gi\|116076696\|gb\|ABJ54416.1 | 4441645 | NA | capsular polysaccharide biosynthesis protein, putative [Streptococcus pneumoniae D39] | Ni |
| gi\|116076700\|gb\|ABJ54420.1 | 4442212 | sdhB | L-serine dehydratase, iron-sulfur-dependent, beta subunit [Streptococcus pneumoniae D39] | Ni |
| gi\|116076711\|gb\|ABJ54431.1 | 4442225 | NA | peptidase M24 family protein [Streptococcus pneumoniae D39] | Ni |
| gi\|116076732\|gb\|ABJ54452.1 | 4442518 | gyrB | DNA gyrase, B subunit [Streptococcus pneumoniae D39] | Ni |
| gi\|116076736\|gb\|ABJ54456.1 | 4442834 | NA | metallo-beta-lactamase superfamily protein domain protein [Streptococcus pneumoniae D39] | Ni |
| gi\|116076749\|gb\|ABJ54469.1 | 4442847 | arcB | ornithine carbamoyltransferase [Streptococcus pneumoniae D39] | Ni |
| gi\|116076760\|gb\|ABJ54480.1 | 4441141 | NA | conserved hypothetical protein [Streptococcus pneumoniae D39] | Ni |
| gi\|116076770\|gb\|ABJ54490.1 | 4441452 | glmS | glucosamine--fructose-6-phosphate aminotransferase, isomerizing [Streptococcus pneumoniae D39] | Ni |
| gi\|116076775\|gb\|ABJ54495.1 | 4441459 | luxS | S-ribosylhomocysteine lyase (autoinducer-2 production protein luxS) (AI-2 synthesis protein [Streptococcus pneumoniae D39] | Ni |
| gi\|116076779\|gb\|ABJ54499.1 | 4441463 | NA | aminotransferase, class I [Streptococcus pneumoniae D39] | Ni |
| gi\|116076804\|gb\|ABJ54524.1 | 4441488 | lepA | GTP-binding protein LepA [Streptococcus pneumoniae D39] | Ni |
| gi\|116076885\|gb\|ABJ54605.1 | 4442792 | rpsL | ribosomal protein S12 [Streptococcus pneumoniae D39] | Ni |
| gi\|116076911\|gb\|ABJ54631.1 | 4442818 | aspC | aspartate aminotransferase [Streptococcus pneumoniae D39] | Ni |
| gi\|116076970\|gb\|ABJ54690.1 | 4441601 | NA | conserved hypothetical protein [Streptococcus pneumoniae D39] | Ni |

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|---|---|---|---|---|
| gi\|116077011\|gb\|ABJ54731.1 | 4441661 | rpoB | DNA-directed RNA polymerase, beta subunit [Streptococcus pneumoniae D39] | Ni |
| gi\|116077025\|gb\|ABJ54745.1 | 4442568 | gatA | glutamyl-tRNA(Gln) amidotransferase subunit A [Streptococcus pneumoniae D39] | Ni |
| gi\|116077029\|gb\|ABJ54749.1 | 4442573 | cps2T | glycosyl transferase, group 1 family protein, putative [Streptococcus pneumoniae D39] | Ni |
| gi\|116077050\|gb\|ABJ54770.1 | 4442944 | guaA | GMP synthase, C-terminal domain [Streptococcus pneumoniae D39] | Ni |
| gi\|116077077\|gb\|ABJ54797.1 | 4442622 | carB | carbamoyl-phosphate synthase, large subunit [Streptococcus pneumoniae D39] | Ni |
| gi\|116077089\|gb\|ABJ54809.1 | 4442635 | fabK | trans-2-enoyl-ACP reductase II [Streptococcus pneumoniae D39] | Ni |
| gi\|116077120\|gb\|ABJ54840.1 | 4441048 | atpD | ATP synthase F1, beta subunit [Streptococcus pneumoniae D39] | Ni |
| gi\|116077130\|gb\|ABJ54850.1 | 4441259 | hsdM | type I restriction-modification system, M subunit [Streptococcus pneumoniae D39] | Ni |
| gi\|116077143\|gb\|ABJ54863.1 | 4441272 | NA | elongation factor Tu family protein [Streptococcus pneumoniae D39] | Ni |
| gi\|116077198\|gb\|ABJ54918.1 | 4442400 | trpB | tryptophan synthase, beta subunit [Streptococcus pneumoniae D39] | Ni |
| gi\|116077207\|gb\|ABJ54927.1 | 4441420 | NA | conserved hypothetical protein [Streptococcus pneumoniae D39] | Ni |
| gi\|116077213\|gb\|ABJ54933.1 | 4441426 | glyQ | glycyl-tRNA synthetase, alpha subunit [Streptococcus pneumoniae D39] | Ni |
| gi\|116077253\|gb\|ABJ54973.1 | 4442458 | NA | hypersensitive-induced reaction protein 4 [Streptococcus pneumoniae D39] | Ni |
| gi\|116077292\|gb\|ABJ55012.1 | 4442342 | gor | glutathione-disulfide reductase [Streptococcus pneumoniae D39] | Ni |
| gi\|116077419\|gb\|ABJ55139.1 | 4442163 | murA-2 | UDP-N-acetylglucosamine 1-carboxyvinyltransferase [Streptococcus pneumoniae D39] | Ni |
| gi\|116077438\|gb\|ABJ55158.1 | 4442144 | pheS | phenylalanyl-tRNA synthetase, alpha subunit [Streptococcus pneumoniae D39] | Ni |
| gi\|116077463\|gb\|ABJ55183.1 | 4442072 | nrdD | anaerobic ribonucleoside-triphosphate reductase [Streptococcus pneumoniae D39] | Ni |
| gi\|116077467\|gb\|ABJ55187.1 | 4442076 | malR | maltose operon transcriptional repressor [Streptococcus pneumoniae D39] | Ni |
| gi\|116077469\|gb\|ABJ55189.1 | 4442078 | ezrA | septation ring formation regulator EzrA [Streptococcus pneumoniae D39] | Ni |
| gi\|116077471\|gb\|ABJ55191.1 | 4442080 | trmD | tRNA (guanine-N1)-methyltransferase [Streptococcus pneumoniae D39] | Ni |
| gi\|116077485\|gb\|ABJ55205.1 | 4442057 | NA | SpoU rRNA Methylase family protein [Streptococcus pneumoniae D39] | Ni |
| gi\|116077489\|gb\|ABJ55209.1 | 4442061 | pepC | aminopeptidase C [Streptococcus pneumoniae D39] | Ni |
| gi\|116077515\|gb\|ABJ55235.1 | 4442015 | dnaN | DNA polymerase III, beta subunit [Streptococcus pneumoniae D39] | Ni |
| gi\|116077520\|gb\|ABJ55240.1 | 4442020 | prfC | peptide chain release factor 3 [Streptococcus pneumoniae D39] | Ni |
| gi\|116077535\|gb\|ABJ55255.1 | 4442912 | argR | arginine repressor [Streptococcus pneumoniae D39] | Ni |
| gi\|116077541\|gb\|ABJ55261.1 | 4442918 | gdhA | NADP-specific glutamate dehydrogenase [Streptococcus pneumoniae D39] | Ni |
| gi\|116077572\|gb\|ABJ55292.1 | 4441979 | ftsA | cell division protein FtsA [Streptococcus pneumoniae D39] | Ni |
| gi\|116077581\|gb\|ABJ55301.1 | 4441989 | glyA | serine hydroxymethyltransferase [Streptococcus pneumoniae D39] | Ni |
| gi\|116077587\|gb\|ABJ55307.1 | 4441956 | dexB | glucan 1,6-alpha-glucosidase [Streptococcus pneumoniae D39] | Ni |
| gi\|116077591\|gb\|ABJ55311.1 | 4441960 | NA | class I glutamine amidotransferase, putative [Streptococcus pneumoniae D39] | Ni |
| gi\|116077599\|gb\|ABJ55319.1 | 4441968 | cps2D | tyrosine-protein kinase Cps2D  cytosolic ATPase domain [Streptococcus pneumoniae D39] | Ni |
| gi\|116077602\|gb\|ABJ55322.1 | 4441971 | rplN | ribosomal protein L14 [Streptococcus pneumoniae D39] | Ni |
| gi\|116077604\|gb\|ABJ55324.1 | 4441973 | gki | glucokinase [Streptococcus pneumoniae D39] | Ni |
| gi\|116077666\|gb\|ABJ55386.1 | 4441901 | lysS | lysyl-tRNA synthetase [Streptococcus pneumoniae D39] | Ni |
| gi\|116077685\|gb\|ABJ55405.1 | 4441881 | ccpA | catabolite control protein A [Streptococcus pneumoniae D39] | Ni |
| gi\|116077690\|gb\|ABJ55410.1 | 4441886 | NA | oxidoreductase, putative [Streptococcus pneumoniae D39] | Ni |
| gi\|116077725\|gb\|ABJ55445.1 | 4441863 | lctO | lactate oxidase [Streptococcus pneumoniae D39] | Ni |
| gi\|116077738\|gb\|ABJ55458.1 | 4441876 | nrdF | ribonucleoside-diphosphate reductase, beta subunit [Streptococcus pneumoniae D39] | Ni |
| gi\|116077781\|gb\|ABJ55501.1 | 4441803 | leuS | leucyl-tRNA synthetase [Streptococcus pneumoniae D39] | Ni |
| gi\|116077785\|gb\|ABJ55505.1 | 4441807 | atpA | ATP synthase F1, alpha subunit [Streptococcus pneumoniae D39] | Ni |

**Biological Process Enrichment Analysis**

| Cluster | ID | Description | GeneRatio | BgRatio | pvalue | qvalue | geneID | Count |
|---|---|---|---|---|---|---|---|---|
| Co | GO:0019538 | protein metabolic process | 61/208 | 154/1339 | 5.05E-15 | 6.27E-13 | rplQ/rpsE/rplC/rpmE2/rpsA/tig/rpsM/rpsJ/rplF/rpsD/pepN/pepQ/rplR/rpsP/rpsB/rplW/rplE/pepV/rplU/rpsG/rplX/rplV/rplD/rplI/msrAB1/rpsH/rpmG/def/rplT/rpsS/rpsK/gltX/rpsT/rplO/rplM/grpE/rpsI/rpmA/map/argS/rpsO/prtA/pepT/pepO/rpsC/rpsF/SPD_1367/tyrS/rplB/cysS/rplS/rplJ/pepS/alaS/rpmB/ileS/rplL/clpX/aspS/pheT/dnaJ | 61 |
| Co | GO:0009059 | macromolecule biosynthetic process | 62/208 | 219/1339 | 7.15E-08 | 3.81E-06 | rplQ/rpsE/rplC/rpmE2/rpsA/rpsM/rpsJ/rplF/rpsD/rplR/rpsP/rpsB/rplW/rplE/rplU/rpsG/rplX/rplV/rplD/rplI/rfbC/rpsH/rpmG/def/rplT/rpsS/rpoA/rpsK/gltX/rpsT/rplO/rplM/rpsI/rpmA/rfbD/argS/rpsO/rpsC/rpsF/SPD_1450/murC/tyrS/rplB/cysS/rplS/glmU/SPD_0969/rplJ/alaS/cps2L/rpmB/SPD_0447/murF/murD/ileS/rplL/nrdE/adcR/aspS/pheT/dnaJ/rpoD | 62 |
| Co | GO:0010467 | gene expression | 56/208 | 191/1339 | 1.02E-07 | 4.75E-06 | rplQ/rpsE/rplC/rpmE2/rpsA/rpsM/rpsJ/rplF/rpsD/rplR/rpsP/rpsB/rplW/rplE/rplU/rpsG/rplX/rplV/rplD/rplI/rpsH/rpmG/def/rplT/rpsS/rpoA/rpsK/gltX/rpsT/rplO/rplM/rpsI/rpmA/argS/rpsO/rpsC/rpsF/SPD_1450/tyrS/rplB/pnp/cysS/rplS/rnz/SPD_1854/SPD_0969/rplJ/alaS/rpmB/SPD_0447/ileS/rplL/adcR/aspS/pheT/rpoD | 56 |
| Co | GO:0016052 | carbohydrate catabolic process | 15/208 | 24/1339 | 1.66E-07 | 6.88E-06 | gpmA/pfkA/eno/fba/pyk/tpiA/gnd/ldh/pgi/lacB/lytA/lacA/pgk/lacD/lacC | 15 |
| Co | GO:0044249 | cellular biosynthetic process | 83/208 | 370/1339 | 2.00E-05 | 0.000391382 | rplQ/rpsE/rplC/rpmE2/rpsA/rpsM/rpsJ/rplF/rpsD/rplR/rpsP/upp/rpsB/rplW/rplE/rplU/rpsG/rplX/rplV/rplD/rplI/nadE/rfbC/rpsH/rpmG/def/rplT/rpsS/rpoA/rpsK/gltX/rpsT/rplO/rplM/rpsI/adk/pyrDa/rpmA/guaB/rfbD/gpsA/acpP/argS/fabF/rpsO/ilvD/folA/deoB/rpsC/arcC/rpsF/SPD_1450/murC/accA/fabG/tyrS/rplB/nadD/cysS/rplS/glmU/prsA/SPD_0969/rplJ/thrC/ndk/ispD/alaS/cps2L/rpmB/SPD_0447/murF/murD/ileS/rplL/aroD/accD/nrdE/adcR/aspS/pheT/dnaJ/rpoD | 83 |
| Co | GO:0006091 | generation of precursor metabolites and energy | 9/208 | 15/1339 | 9.56E-05 | 0.001549082 | gpmA/pfkA/eno/fba/pyk/tpiA/ldh/pgi/pgk | 9 |
| Co | GO:0005975 | carbohydrate metabolic process | 32/208 | 112/1339 | 0.000170999 | 0.002548787 | gpmA/pfkA/eno/fba/gap/pyk/tpiA/rfbC/galE-1/gnd/ldh/bgaA/rfbD/pgi/lacB/pflB/lytA/strH/lacA/SPD_0403/manA/murC/pgk/glmU/lacD/nanA/cps2L/glmM/lacC/murF/murD/rpe | 32 |
| Co | GO:0044260 | cellular macromolecule metabolic process | 75/208 | 343/1339 | 0.000178498 | 0.002558233 | rplQ/rpsE/rplC/rpmE2/rpsA/tig/rpsM/rpsJ/rplF/rpsD/rplR/rpsP/rpsB/rplW/rplE/clpL/rplU/rpsG/rplX/rplV/rplD/rplI/msrAB1/rfbC/rpsH/rpmG/def/rplT/rpsS/rpoA/rpsK/gltX/rpsT/rplO/rplM/grpE/rpsI/rpmA/rfbD/argS/rpsO/clpE/rpsC/rluB/rpsF/SPD_1450/murC/SPD_1367/tyrS/recA/rplB/pnp/cysS/rplS/glmU/rnz/SPD_1854/SPD_0969/rplJ/alaS/cps2L/rluD/rpmB/SPD_0447/murF/murD/ileS/rplL/nrdE/adcR/clpX/aspS/pheT/dnaJ/rpoD | 75 |
| Co | GO:0044262 | cellular carbohydrate metabolic process | 10/208 | 23/1339 | 0.001182548 | 0.016320548 | rfbC/gnd/rfbD/lacB/lacA/SPD_0403/glmU/lacD/cps2L/lacC | 10 |
| Ni | GO:0019538 | protein metabolic process | 57/223 | 154/1339 | 4.87E-11 | 6.81E-09 | rplT/rpsD/rplC/rpsJ/rpsO/pepN/rpsG/rpsC/rpsK/rpsB/rplM/pepQ/rplP/rplR/rplB/thrS/rpsS/proS/pheS/alaS/rplS/asnC/lysS/rplL/asnA/rplJ/pepO/rpsE/SPD_0704/tig/ileS/argS/rpsL/dnaJ/pepC/rplE/SPD_1367/rpmA/rpsA/SPD_2022/rplF/rplD/gatA/rplK/clpX/pepV/def/prtA/SPD_0177/leuS/tyrS/glyQ/gltX/rpmB/rplV/rplN/rplA | 57 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Ni | GO:0010467 | gene expression | 61/223 | 191/1339 | 1.02E-08 | 7.14E-07 | rplT/rpsD/rplC/rpsJ/rpsO/rpsG/rpsC/rpsK/pnp/rpsB/rplM/rplP/rplR/rplB/thrS/rpsS/rpoB/proS/pheS/argR/alaS/rplS/SPD_0379/asnC/lysS/rplL/asnA/rplJ/rpsE/ccpA/tgt/ileS/argS/rpsL/hsdM/rplE/rpmA/rpsA/adcR/rplF/rplD/gatA/rplK/SPD_0969/def/lacR1/pyrR/leuS/SPD_0064/tyrS/glyQ/SPD_1854/rnz/SPD_1450/SPD_1771/gltX/rpmB/malR/rplV/rplN/rplA | 61 |
| Ni | GO:0009059 | macromolecule biosynthetic process | 64/223 | 219/1339 | 2.11E-07 | 9.15E-06 | rplT/rpsD/rplC/rpsJ/rpsO/rpsG/rpsC/nrdE/rpsK/rpsB/rplM/rplP/rplR/rplB/thrS/rpsS/rpoB/proS/pheS/argR/alaS/rplS/SPD_0379/asnC/lysS/rplL/asnA/rplJ/rpsE/ccpA/glmU/ileS/argS/murC/rpsL/dnaJ/rplE/rpmA/rpsA/adcR/rplF/rplD/gatA/rplK/rfbD/cps2L/SPD_0969/def/lacR1/pyrR/leuS/SPD_0064/tyrS/glyQ/SPD_1450/gltX/rpmB/malR/dnaN/cps2D/rplV/murA-2/rplN/rplA | 64 |
| Ni | GO:0044249 | cellular biosynthetic process | 88/223 | 370/1339 | 1.77E-05 | 0.000322681 | rplT/rpsD/rplC/rpsJ/rpsO/rpsG/rpsC/nrdE/rpsK/gpsA/guaB/rpsB/rplM/glnA/rplP/rplR/fabF/dapB/rplB/thrS/rpsS/purA/rpoB/atpD/proS/pheS/argR/alaS/rplS/SPD_0379/asnC/upp/lysS/atpA/guaA/rplL/prsA/asnA/rplJ/rpsE/fabG/ccpA/carB/deoB/pyrDa/glmU/tgt/ileS/argS/ilvD/murC/rpsL/pncB/dnaJ/rplE/rpmA/rpsA/adcR/rplF/rplD/aroC/gatA/accD/rplK/rfbD/cps2L/SPD_0969/def/lacR1/pyrR/leuS/adk/SPD_0064/tyrS/glyQ/accA/SPD_1450/gltX/pyrG/rpmB/malR/dnaN/cps2D/rplV/aroA/murA-2/rplN/rplA | 88 |
| Ni | GO:0006091 | generation of precursor metabolites and energy | 10/223 | 15/1339 | 1.89E-05 | 0.000331272 | eno/pfkA/fba/ldh/pyk/pgi/gpmA/gki/pgk/ppc | 10 |
| Ni | GO:0016052 | carbohydrate catabolic process | 12/223 | 24/1339 | 0.000143164 | 0.002405157 | eno/pfkA/fba/ldh/pyk/pgi/lacB/gpmA/gki/lytA/pgk/gnd | 12 |
| Ni | GO:0044260 | cellular macromolecule metabolic process | 78/223 | 343/1339 | 0.000413398 | 0.005987145 | rplT/rpsD/rplC/rpsJ/rpsO/rpsG/rpsC/nrdE/rpsK/pnp/rpsB/rplM/rplP/rplR/rplB/thrS/rpsS/rpoB/proS/pheS/argR/alaS/rplS/SPD_0379/asnC/lysS/rplL/asnA/rplJ/rpsE/clpL/ccpA/tig/glmU/tgt/ileS/argS/murC/rpsL/rluB/hsdM/dnaJ/rplE/SPD_1367/gyrB/recA/rpmA/rpsA/adcR/rplF/rplD/gatA/rluD/rplK/rfbD/cps2L/clpX/SPD_0969/def/lacR1/pyrR/leuS/SPD_0064/tyrS/glyQ/SPD_1854/rnz/SPD_1450/SPD_1771/gltX/rpmB/malR/dnaN/cps2D/rplV/murA-2/rplN/rplA | 78 |
| Ni | GO:0006082 | organic acid metabolic process | 31/223 | 107/1339 | 0.000626826 | 0.008227085 | glnA/fabF/dapB/thrS/proS/pheS/alaS/gdhA/asnC/lysS/guaA/asnA/fabG/gnd/carB/ileS/argS/ilvD/glyA/ackA/argF/aroC/accD/leuS/tyrS/glyQ/SPD_0974/accA/gor/gltX/aroA | 31 |
| Ni | GO:0042180 | cellular ketone metabolic process | 30/223 | 103/1339 | 0.000700428 | 0.008405135 | glnA/fabF/dapB/thrS/proS/pheS/alaS/gdhA/asnC/lysS/guaA/asnA/fabG/gnd/carB/ileS/argS/ilvD/glyA/argF/aroC/accD/leuS/tyrS/glyQ/SPD_0974/accA/gor/gltX/aroA | 30 |
| Ni | GO:0005975 | carbohydrate metabolic process | 31/223 | 112/1339 | 0.00147813 | 0.017244851 | eno/pfkA/gap/fba/ldh/pflB/malP/pyk/pgi/pgm/glmS/SPD_0403/strH/galE-1/lacB/gpmA/gki/lytA/pgk/gnd/glmU/murC/bgaA/pulA/rfbD/cps2L/dexB/rpe/sdhB/cps2D/murA-2 | 31 |
| Ni | GO:0006520 | cellular amino acid metabolic process | 25/223 | 89/1339 | 0.003510485 | 0.038800095 | glnA/dapB/thrS/proS/pheS/alaS/gdhA/asnC/lysS/guaA/asnA/carB/ileS/argS/ilvD/glyA/argF/aroC/leuS/tyrS/glyQ/SPD_0974/gor/gltX/aroA | 25 |

**Molecular Function Enrichment Analysis**

| Cluster | ID | Description | GeneRatio | BgRatio | pvalue | qvalue | geneID | Count |
|---|---|---|---|---|---|---|---|---|

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Co | GO:0019843 | rRNA binding | 24/208 | 32/1339 | 3.99E-14 | 3.73E-12 | rpsE/rplC/rpsM/rplF/rpsD/rplR/rplW/rplE/rplU/rpsG/rplX/rplV/rplD/rplI/rpsH/rplT/rpsS/rpsK/rpsT/rplO/rpsO/rpsC/rpsF/rplB | 24 |
| Co | GO:0046872 | metal ion binding | 35/208 | 125/1339 | 0.000127997 | 0.007167844 | adhA/SPD_1865/pfkA/eno/fba/SPD_1402/pepN/pepQ/SPD_1834/pyk/pepV/sodA/ppaC/def/guaB/ptsI/ilvD/spxB/deoB/metK/pepT/SPD_1450/manA/SPD_1463/glmU/prsA/rnz/ndk/alaS/cps2L/glmM/ileS/clpX/pheT/dnaJ | 35 |
| Co | GO:0016861 | intramolecular oxidoreductase activity, interconverting aldoses and ketoses | 6/208 | 10/1339 | 0.001593935 | 0.034330916 | nagB/tpiA/pgi/lacB/lacA/manA | 6 |
| Ni | GO:0019843 | rRNA binding | 20/223 | 32/1339 | 4.34E-09 | 4.72E-07 | rplT/rpsD/rplC/rpsO/rpsG/rpsC/rpsK/rplP/rplR/rplB/rpsS/rpsE/rpsL/rplE/rplF/rplD/rplK/rplV/rplN/rplA | 20 |
| Ni | GO:0046872 | metal ion binding | 40/223 | 125/1339 | 6.24E-06 | 0.000250173 | SPD_1865/eno/SPD_1834/pfkA/fba/SPD_1402/adhA/pepN/pyk/spxB/guaB/pgm/pepQ/thrS/purA/pheS/alaS/lysS/ptsI/SPD_0130/prsA/carB/deoB/secA/glmU/tgt/ileS/ilvD/metK/dnaJ/nrdF/cps2L/clpX/pepV/def/SPD_0177/sodA/luxS/rnz/SPD_1450 | 40 |
| Ni | GO:0016876 | ligase activity, forming aminoacyl-tRNA and related compounds | 13/223 | 25/1339 | 4.35E-05 | 0.000946808 | thrS/proS/pheS/alaS/asnC/lysS/asnA/ileS/argS/leuS/tyrS/glyQ/gltX | 13 |
| Ni | GO:0016616 | oxidoreductase activity, acting on the CH-OH group of donors, NAD or NADP as acceptor | 10/223 | 23/1339 | 0.002067764 | 0.037485772 | SPD_1865/SPD_1834/ldh/adhA/gpsA/guaB/cps2K/fabG/gnd/rfbD | 10 |

**Cellular Component Enrichment Analysis**

| Cluster | ID | Description | GeneRatio | BgRatio | pvalue | qvalue | geneID | Count |
|---|---|---|---|---|---|---|---|---|
| Co | GO:0044444 | cytoplasmic part | 47/208 | 69/1339 | 2.60E-24 | 4.92E-23 | pfkA/eno/rplQ/rpsE/rplC/rpmE2/rpsA/rpsM/rpsJ/rplF/rpsD/rplR/rpsP/rpsB/rplW/rplE/rplU/rpsG/rplX/rplV/rplD/rplI/rpsH/rpmG/rplT/rpsS/rpsK/rpsT/rplO/rplM/ffh/grpE/rpsI/rpmA/gpsA/rpsO/rpsC/rpsF/accA/rplB/pnp/rplS/rplJ/rpmB/rplL/accD/nrdE | 47 |
| Co | GO:0030529 | ribonucleoprotein complex | 39/208 | 55/1339 | 3.77E-21 | 3.58E-20 | rplQ/rpsE/rplC/rpmE2/rpsA/rpsM/rpsJ/rplF/rpsD/rplR/rpsP/rpsB/rplW/rplE/rplU/rpsG/rplX/rplV/rplD/rplI/rpsH/rpmG/rplT/rpsS/rpsK/rpsT/rplO/rplM/ffh/rpsI/rpmA/rpsO/rpsC/rpsF/rplB/rplS/rplJ/rpmB/rplL | 39 |
| Co | GO:0005840 | ribosome | 38/208 | 54/1339 | 2.03E-20 | 1.28E-19 | rplQ/rpsE/rplC/rpmE2/rpsA/rpsM/rpsJ/rplF/rpsD/rplR/rpsP/rpsB/rplW/rplE/rplU/rpsG/rplX/rplV/rplD/rplI/rpsH/rpmG/rplT/rpsS/rpsK/rpsT/rplO/rplM/rpsI/rpmA/rpsO/rpsC/rpsF/rplB/rplS/rplJ/rpmB/rplL | 38 |
| Co | GO:0005737 | cytoplasm | 91/208 | 265/1339 | 2.65E-18 | 1.25E-17 | tuf/pfkA/eno/rplQ/rpsE/rplC/rpmE2/rpsA/rpsM/rpsJ/rplF/rpsD/ftsZ/rplR/rpsP/nox/rpsB/rplW/rplE/rplU/rpsG/rplX/rplV/rplD/tpiA/rplI/SPD_1415/ppaC/rpsH/rpmG/rplT/rpsS/rpsK/gltX/rpsT/tsf/rplO/ldh/ptsH/rplM/ffh/grpE/rpsI/adk/pyrDa/SPD_0444/rpmA/pgi/gpsA/pflB/fusA/acpP/ackA/SPD_0976/argS/infB/rpsO/ptsI/SPD_0066/deoB/metK/pepT/rpsC/SPD_1303/rpsF/murC/accA/pgk/tyrS/recA/rplB/pnp/cysS/rplS/glmU/prsA/obgE/rplJ/ndk/alaS/rpmB/ylmF/murF/murD/ileS/rplL/accD/nrdE/aspS/pheT/dnaJ | 91 |
| Co | GO:0043229 | intracellular organelle | 40/208 | 69/1339 | 6.66E-17 | 2.10E-16 | rplQ/rpsE/rplC/rpmE2/rpsA/rpsM/rpsJ/rplF/rpsD/rplR/rpsP/rpsB/rplW/rplE/rplU/rpsG/rplX/rplV/rplD/rplI/rpsH/rpmG/rplT/rpsS/rpsK/rpsT/rplO/rplM/grpE/rpsI/rpmA/rpsO/rpsC/rpsF/rplB/pnp/rplS/rplJ/rpmB/rplL | 40 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Co | GO:0043232 | intracellular non-membrane-bounded organelle | 38/208 | 65/1339 | 3.04E-16 | 6.88E-16 | rplQ/rpsE/rplC/rpmE2/rpsA/rpsM/rpsJ/rplF/rpsD/rplR/rpsP/rpsB/rplW/rplE/rplU/rpsG/rplX/rplV/rplD/rplI/rpsH/rpmG/rplT/rpsS/rpsK/rpsT/rplO/rplM/rpsI/rpmA/rpsO/rpsC/rpsF/rplB/rplS/rplJ/rpmB/rplL | 38 |
| Co | GO:0044424 | intracellular part | 91/208 | 287/1339 | 1.40E-15 | 2.65E-15 | tuf/pfkA/eno/rplQ/rpsE/rplC/rpmE2/rpsA/rpsM/rpsJ/rplF/rpsD/ftsZ/rplR/rpsP/nox/rpsB/rplW/rplE/rplU/rpsG/rplX/rplV/rplD/tpiA/rplI/SPD_1415/ppaC/rpsH/rpmG/rplT/rpsS/rpsK/gltX/rpsT/tsf/rplO/ldh/ptsH/rplM/ffh/grpE/rpsI/adk/pyrDa/SPD_0444/rpmA/pgi/gpsA/pflB/fusA/acpP/ackA/SPD_0976/argS/infB/rpsO/ptsI/SPD_0066/deoB/metK/pepT/rpsC/SPD_1303/rpsF/murC/accA/pgk/tyrS/recA/rplB/pnp/cysS/rplS/glmU/prsA/obgE/rplJ/ndk/alaS/rpmB/ylmF/murF/murD/ileS/rplL/accD/nrdE/aspS/pheT/dnaJ | 91 |
| Co | GO:0005622 | intracellular | 97/208 | 339/1339 | 2.29E-13 | 3.95E-13 | tuf/pfkA/eno/rplQ/rpsE/rplC/rpmE2/rpsA/rpsM/rpsJ/rplF/rpsD/ftsZ/rplR/rpsP/nox/rpsB/rplW/rplE/rplU/rpsG/rplX/rplV/rplD/tpiA/rplI/SPD_1415/ppaC/rpsH/rpmG/rplT/rpsS/rpsK/gltX/rpsT/tsf/rplO/ldh/ptsH/rplM/ffh/grpE/rpsI/adk/pyrDa/SPD_0444/rpmA/pgi/gpsA/pflB/fusA/acpP/ackA/SPD_0976/engA/argS/infB/rpsO/era/ptsI/SPD_0066/deoB/metK/pepT/rpsC/SPD_1303/rpsF/murC/accA/pgk/tyrS/recA/rplB/pnp/cysS/rplS/glmU/prsA/SPD_0969/obgE/rplJ/ndk/alaS/rbgA/rpmB/ylmF/murF/murD/ileS/rplL/engB/accD/nrdE/adcR/aspS/pheT/dnaJ | 97 |
| Co | GO:0044391 | ribosomal subunit | 10/208 | 15/1339 | 9.86E-06 | 1.33E-05 | rpsE/rpsJ/rpsD/rpsB/rpsG/rplV/rpsS/rplO/rpsC/rplB | 10 |
| Co | GO:0015935 | small ribosomal subunit | 7/208 | 8/1339 | 1.39E-05 | 1.76E-05 | rpsE/rpsJ/rpsD/rpsB/rpsG/rpsS/rpsC | 7 |
| Co | GO:0044446 | intracellular organelle part | 10/208 | 19/1339 | 0.000170014 | 0.00018949 | rpsE/rpsJ/rpsD/rpsB/rpsG/rplV/rpsS/rplO/rpsC/rplB | 10 |
| Co | GO:0009986 | cell surface | 7/208 | 12/1339 | 0.000783301 | 0.000824527 | eno/bgaA/SPD_0444/strH/SPD_0335/prtA/nanA | 7 |
| Ni | GO:0005737 | cytoplasm | 92/223 | 265/1339 | 2.14E-16 | 7.22E-15 | tuf/eno/pfkA/rplT/rpsD/rplC/fusA/rpsJ/ldh/rpsO/pflB/pgi/rpsG/rpsC/nrdE/rpsK/gpsA/glmS/pnp/rpsB/rplM/glnA/rplP/rplR/dapB/rplB/nox/thrS/rpsS/purA/proS/pheS/argR/alaS/rplS/SPD_0976/asnC/ftsZ/lysS/ptsI/rplL/prsA/gki/asnA/rplJ/rpsE/pgk/deoB/pyrDa/secA/glmU/ileS/argS/infB/obgE/SPD_1415/murC/rpsL/metK/dnaJ/rplE/glyA/recA/rpmA/rpsA/codY/ackA/argF/ptsH/rplF/rplD/ezrA/accD/rplK/leuS/adk/tyrS/glyQ/SPD_0444/prfC/accA/gor/gltX/rpmB/SPD_0651/dnaN/rplV/aroA/murA-2/trmD/rplN/rplA | 92 |
| Ni | GO:0005622 | intracellular | 106/223 | 339/1339 | 1.77E-15 | 2.48E-14 | tuf/eno/pfkA/rplT/rpsD/rplC/fusA/rpsJ/ldh/rpsO/pflB/pgi/rpsG/rpsC/nrdE/rpsK/gpsA/glmS/pnp/rpsB/rplM/glnA/rplP/rplR/dapB/rplB/nox/thrS/rpsS/purA/atpD/proS/pheS/argR/alaS/rplS/SPD_0976/SPD_0379/asnC/ftsZ/lysS/ptsI/atpA/rplL/prsA/gki/asnA/rplJ/rpsE/pgk/ccpA/deoB/pyrDa/engB/secA/glmU/ileS/argS/infB/obgE/SPD_1415/murC/rpsL/metK/dnaJ/rplE/glyA/gyrB/recA/SPD_0593/rpmA/rpsA/codY/ackA/argF/adcR/ptsH/rplF/rplD/era/ezrA/accD/rplK/engA/SPD_0969/lacR1/leuS/adk/SPD_0064/tyrS/glyQ/SPD_0444/prfC/accA/gor/gltX/rpmB/SPD_0651/malR/dnaN/rplV/aroA/murA-2/trmD/rplN/rplA | 106 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Ni | GO:0044424 | intracellular part | 95/223 | 287/1339 | 2.21E-15 | 2.48E-14 | tuf/eno/pfkA/rplT/rpsD/rplC/fusA/rpsJ/ldh/rpsO/pflB/pgi/rpsG/rpsC/nrdE/rpsK/gpsA/glmS/pnp/rpsB/rplM/glnA/rplP/rplR/dapB/rplB/nox/thrS/rpsS/purA/atpD/proS/pheS/argR/alaS/rplS/SPD_0976/asnC/ftsZ/lysS/ptsI/atpA/rplL/prsA/gki/asnA/rplJ/rpsE/pgk/deoB/pyrDa/secA/glmU/ileS/argS/infB/obgE/SPD_1415/murC/rpsL/metK/dnaJ/rplE/glyA/gyrB/recA/rpmA/rpsA/codY/ackA/argF/ptsH/rplF/rplD/ezrA/accD/rplK/leuS/adk/tyrS/glyQ/SPD_0444/prfC/accA/gor/gltX/rpmB/SPD_0651/dnaN/rplV/aroA/murA-2/trmD/rplN/rplA | 95 |
| Ni | GO:0044444 | cytoplasmic part | 38/223 | 69/1339 | 5.84E-14 | 4.92E-13 | eno/pfkA/rplT/rpsD/rplC/rpsJ/rpsO/rpsG/rpsC/nrdE/rpsK/gpsA/pnp/rpsB/rplM/rplP/rplR/rplB/rpsS/rplS/rplL/rplJ/rpsE/rpsL/rplE/rpmA/rpsA/argF/rplF/rplD/ezrA/accD/rplK/accA/rpmB/rplV/rplN/rplA | 38 |
| Ni | GO:0005840 | ribosome | 29/223 | 54/1339 | 1.85E-10 | 1.04E-09 | rplT/rpsD/rplC/rpsJ/rpsO/rpsG/rpsC/rpsK/rpsB/rplM/rplP/rplR/rplB/rpsS/rplS/rplL/rplJ/rpsE/rpsL/rplE/rpmA/rpsA/rplF/rplD/rplK/rpmB/rplV/rplN/rplA | 29 |
| Ni | GO:0030529 | ribonucleoprotein complex | 29/223 | 55/1339 | 3.35E-10 | 1.61E-09 | rplT/rpsD/rplC/rpsJ/rpsO/rpsG/rpsC/rpsK/rpsB/rplM/rplP/rplR/rplB/rpsS/rplS/rplL/rplJ/rpsE/rpsL/rplE/rpmA/rpsA/rplF/rplD/rplK/rpmB/rplV/rplN/rplA | 29 |
| Ni | GO:0043232 | intracellular non-membrane-bounded organelle | 31/223 | 65/1339 | 2.06E-09 | 7.69E-09 | rplT/rpsD/rplC/rpsJ/rpsO/rpsG/rpsC/rpsK/rpsB/rplM/rplP/rplR/rplB/rpsS/rplS/rplL/rplJ/rpsE/rpsL/rplE/gyrB/rpmA/rpsA/rplF/rplD/ezrA/rplK/rpmB/rplV/rplN/rplA | 31 |
| Ni | GO:0043229 | intracellular organelle | 32/223 | 69/1339 | 2.68E-09 | 8.20E-09 | rplT/rpsD/rplC/rpsJ/rpsO/rpsG/rpsC/rpsK/pnp/rpsB/rplM/rplP/rplR/rplB/rpsS/rplS/rplL/rplJ/rpsE/rpsL/rplE/gyrB/rpmA/rpsA/rplF/rplD/ezrA/rplK/rpmB/rplV/rplN/rplA | 32 |
| Ni | GO:0044391 | ribosomal subunit | 12/223 | 15/1339 | 1.00E-07 | 2.81E-07 | rpsD/rpsJ/rpsG/rpsC/rpsB/rplB/rpsS/rpsE/rpsL/rplV/rplN/rplA | 12 |
| Ni | GO:0015935 | small ribosomal subunit | 8/223 | 8/1339 | 5.32E-07 | 1.17E-06 | rpsD/rpsJ/rpsG/rpsC/rpsB/rpsS/rpsE/rpsL | 8 |
| Ni | GO:0044446 | intracellular organelle part | 13/223 | 19/1339 | 5.88E-07 | 1.17E-06 | rpsD/rpsJ/rpsG/rpsC/rpsB/rplB/rpsS/rpsE/rpsL/ezrA/rplV/rplN/rplA | 13 |
| Ni | GO:0009986 | cell surface | 6/223 | 12/1339 | 0.007615219 | 0.014250703 | eno/strH/SPD_0335/bgaA/prtA/SPD_0444 | 6 |
| Ni | GO:0015934 | large ribosomal subunit | 4/223 | 7/1339 | 0.017306347 | 0.030681612 | rplB/rplV/rplN/rplA | 4 |

Identified Ni-binding proteins from *S.pneumoniae* D39

| Sequence | M+H+ | CalcM+H+ | Charge | Rank | Xcorr | DeltaCn | SpScore | RSp | Ions | Reference | ProteinCount |
|---|---|---|---|---|---|---|---|---|---|---|---|
| R.HYAHIDAPGHADYVK.N | 1693.8171 | 1693.8081 | 3 | 1 | 3.4797 | 0.807 | 987.2 | 1 | 26\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.814 | 1693.8081 | 3 | 1 | 3.8399 | 0.82 | 1021.2 | 1 | 25\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8157 | 1693.8081 | 3 | 1 | 3.6533 | 0.8143 | 882.2 | 1 | 27\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| K.HVPVYIQEDM*VGHK.L | 1667.826 | 1667.821 | 3 | 1 | 3.8593 | 0.8986 | 540.3 | 1 | 23\|52 | gi\|116076688\|gb\|ABJ54408.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8158 | 1693.8081 | 3 | 1 | 4.1156 | 0.8248 | 1198.5 | 1 | 29\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| K.DFHVVAETGIHAR.P | 1451.7452 | 1451.739 | 3 | 1 | 3.4645 | 0.7148 | 1625 | 1 | 27\|48 | gi\|116077289\|gb\|ABJ55009.1 | 1 |
| R.GMVPSGASTGEHEAVELR.D | 1826.8742 | 1826.8701 | 2 | 1 | 3.3921 | 0.8306 | 436.1 | 1 | 18\|34 | gi\|116077344\|gb\|ABJ55064.1 | 1 |
| R.GMVPSGASTGEHEAVELR.D | 1826.8798 | 1826.8701 | 2 | 1 | 3.5622 | 0.8584 | 800.6 | 1 | 22\|34 | gi\|116077344\|gb\|ABJ55064.1 | 1 |
| R.GMVPSGASTGEHEAVELR.D | 1826.8793 | 1826.8701 | 2 | 1 | 3.8016 | 0.8147 | 836.2 | 1 | 23\|34 | gi\|116077344\|gb\|ABJ55064.1 | 1 |
| K.DFHVVAETGIHAR.P | 1451.7444 | 1451.739 | 3 | 1 | 3.5801 | 0.783 | 2030.3 | 1 | 30\|48 | gi\|116077289\|gb\|ABJ55009.1 | 1 |
| K.DFHVVAETGIHAR.P | 1451.7445 | 1451.739 | 3 | 1 | 3.454 | 0.752 | 1623.5 | 1 | 27\|48 | gi\|116077289\|gb\|ABJ55009.1 | 1 |
| K.DFHVVAETGIHAR.P | 1451.745 | 1451.739 | 3 | 1 | 4.3431 | 0.6302 | 1854.4 | 1 | 29\|48 | gi\|116077289\|gb\|ABJ55009.1 | 1 |
| K.HVPVYIQEDMVGHK.L | 1651.8329 | 1651.8261 | 3 | 1 | 3.6222 | 0.879 | 413.5 | 1 | 20\|52 | gi\|116076688\|gb\|ABJ54408.1 | 1 |
| K.YYVEHPDERPHSNDGWGNASEHVLGK.K | 2993.3683 | 2993.3561 | 4 | 1 | 4.6853 | 0.8757 | 1608.8 | 1 | 42\|150 | gi\|116077580\|gb\|ABJ55300.1 | 1 |
| K.HVPVYIQEDMVGHK.L | 1651.836 | 1651.8261 | 3 | 1 | 3.6973 | 0.7941 | 467.4 | 1 | 22\|52 | gi\|116076688\|gb\|ABJ54408.1 | 1 |
| R.GITINTAHVEYETEK.R | 1704.8515 | 1704.8439 | 2 | 1 | 4.2271 | 0.7857 | 916.9 | 1 | 16\|28 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8151 | 1693.8081 | 4 | 1 | 4.427 | 0.8039 | 1784.8 | 1 | 35\|84 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.GITINTAHVEYETEK.R | 1704.8503 | 1704.8439 | 2 | 1 | 4.3115 | 0.777 | 1193 | 1 | 18\|28 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.GITINTAHVEYETEK.R | 1704.8525 | 1704.8439 | 2 | 1 | 4.4985 | 0.7589 | 1390.4 | 1 | 18\|28 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.815 | 1693.8081 | 3 | 1 | 3.5399 | 0.754 | 569.5 | 1 | 25\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.LETALSFGATHK.V | 1274.6796 | 1274.6739 | 2 | 1 | 2.4811 | 0.6134 | 422.6 | 1 | 13\|22 | gi\|116077673\|gb\|ABJ55393.1 | 1 |
| R.LETALSFGATHK.V | 1274.6797 | 1274.6739 | 2 | 1 | 3.1084 | 0.6959 | 914.3 | 1 | 17\|22 | gi\|116077673\|gb\|ABJ55393.1 | 1 |
| R.LETALSFGATHK.V | 1274.6797 | 1274.6739 | 2 | 1 | 2.6578 | 0.621 | 673.9 | 1 | 15\|22 | gi\|116077673\|gb\|ABJ55393.1 | 1 |
| K.HVPVYIQEDMVGHK.L | 1651.8336 | 1651.8261 | 3 | 1 | 5.1069 | 0.7969 | 955.4 | 1 | 30\|52 | gi\|116076688\|gb\|ABJ54408.1 | 1 |
| K.HVPVYIQEDMVGHK.L | 1651.8327 | 1651.8261 | 3 | 1 | 4.3491 | 0.829 | 725.4 | 1 | 27\|52 | gi\|116076688\|gb\|ABJ54408.1 | 1 |
| K.HVPVYIQEDMVGHK.L | 1651.8325 | 1651.8261 | 3 | 1 | 4.2412 | 0.8501 | 942.1 | 1 | 29\|52 | gi\|116076688\|gb\|ABJ54408.1 | 1 |
| K.HVPVYIQEDMVGHK.L | 1651.8312 | 1651.8261 | 3 | 1 | 4.4153 | 0.8147 | 969 | 1 | 29\|52 | gi\|116076688\|gb\|ABJ54408.1 | 1 |
| R.DPGVEEFHSWQK.A | 1458.6716 | 1458.6648 | 2 | 1 | 2.7017 | 0.8142 | 223.5 | 1 | 13\|22 | gi\|116076809\|gb\|ABJ54529.1 | 1 |
| K.HVPVYIQEDMVGHK.L | 1651.8314 | 1651.8261 | 3 | 1 | 4.4418 | 0.8202 | 908.5 | 1 | 29\|52 | gi\|116076688\|gb\|ABJ54408.1 | 1 |
| K.TLLQNAPHDSICGCSVDEVHR.E | 2408.1386 | 2408.1082 | 3 | 1 | 5.0653 | 0.6396 | 736.8 | 1 | 29\|80 | gi\|116076744\|gb\|ABJ54464.1 | 1 |
| K.TLLQNAPHDSICGCSVDEVHR.E | 2408.1386 | 2408.1082 | 3 | 1 | 4.3766 | 0.8096 | 835.2 | 1 | 30\|80 | gi\|116076744\|gb\|ABJ54464.1 | 1 |
| K.TLLQNAPHDSICGCSVDEVHR.E | 2408.1214 | 2408.1082 | 3 | 1 | 4.8328 | 0.8211 | 1064.4 | 1 | 33\|80 | gi\|116076744\|gb\|ABJ54464.1 | 1 |
| K.TLLQNAPHDSICGCSVDEVHR.E | 2408.1209 | 2408.1082 | 3 | 1 | 4.974 | 0.7107 | 1193.7 | 1 | 35\|80 | gi\|116076744\|gb\|ABJ54464.1 | 1 |
| R.DPGVEEFHSWQK.A | 1458.6731 | 1458.6648 | 2 | 1 | 3.2421 | 0.818 | 283.8 | 1 | 15\|22 | gi\|116076809\|gb\|ABJ54529.1 | 1 |
| R.DPGVEEFHSWQK.A | 1458.6731 | 1458.6648 | 2 | 1 | 3.3083 | 0.8459 | 435 | 1 | 17\|22 | gi\|116076809\|gb\|ABJ54529.1 | 1 |
| K.TLLQNAPHDSICGCSVDEVHR.E | 2408.1205 | 2408.1082 | 3 | 1 | 5.2264 | 0.8154 | 930.7 | 1 | 31\|80 | gi\|116076744\|gb\|ABJ54464.1 | 1 |
| K.TLLQNAPHDSICGCSVDEVHR.E | 2408.1203 | 2408.1082 | 3 | 1 | 3.9637 | 0.7731 | 549.9 | 1 | 26\|80 | gi\|116076744\|gb\|ABJ54464.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.9872 | 2026.9763 | 3 | 1 | 4.4437 | 0.7613 | 1342.1 | 1 | 32\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.9854 | 2026.9763 | 3 | 1 | 4.1745 | 0.8309 | 1265 | 1 | 32\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.9865 | 2026.9763 | 3 | 1 | 5.2714 | 0.8118 | 1532.3 | 1 | 35\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |

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|---|---|---|---|---|---|---|---|---|---|---|
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.9876 | 2026.9763 | 3 | 1 | 5.6322 | 0.8583 | 1882 | 1 35\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| R.LETALSFGATHK.V | 1274.6802 | 1274.6739 | 2 | 1 | 2.8901 | 0.6981 | 1316.5 | 1 18\|22 | gi\|116077673\|gb\|ABJ55393.1 | 1 |
| R.LETALSFGATHK.V | 1274.6802 | 1274.6739 | 2 | 1 | 3.1504 | 0.6743 | 734.4 | 1 15\|22 | gi\|116077673\|gb\|ABJ55393.1 | 1 |
| R.LETALSFGATHK.V | 1274.6802 | 1274.6739 | 2 | 1 | 2.5098 | 0.6063 | 467.6 | 1 13\|22 | gi\|116077673\|gb\|ABJ55393.1 | 1 |
| K.YELINQTGHAETVHVTYDAK.Q | 2289.1271 | 2289.1146 | 3 | 1 | 3.6658 | 0.7902 | 362.3 | 1 24\|76 | gi\|116076176\|gb\|ABJ53896.1 | 1 |
| K.YELINQTGHAETVHVTYDAK.Q | 2289.1271 | 2289.1146 | 3 | 1 | 3.5353 | 0.7505 | 571.4 | 1 27\|76 | gi\|116076176\|gb\|ABJ53896.1 | 1 |
| K.HVPVYIQEDMVGHK.L | 1651.8356 | 1651.8261 | 3 | 1 | 4.6555 | 0.8379 | 808.4 | 1 29\|52 | gi\|116076688\|gb\|ABJ54408.1 | 1 |
| K.HVPVYIQEDMVGHK.L | 1651.8334 | 1651.8261 | 3 | 1 | 4.4707 | 0.7969 | 1068.2 | 1 30\|52 | gi\|116076688\|gb\|ABJ54408.1 | 1 |
| K.YELINQTGHAETVHVTYDAK.Q | 2289.1276 | 2289.1146 | 3 | 1 | 3.4609 | 0.803 | 367.4 | 1 24\|76 | gi\|116076176\|gb\|ABJ53896.1 | 1 |
| K.HVPVYIQEDMVGHK.L | 1651.8319 | 1651.8261 | 3 | 1 | 4.8253 | 0.8492 | 927.1 | 1 30\|52 | gi\|116076688\|gb\|ABJ54408.1 | 1 |
| R.HYLSAVEEGNACITEDHLSQK.E | 2401.1197 | 2401.1089 | 3 | 1 | 5.6322 | 0.8396 | 977.3 | 1 32\|80 | gi\|116077632\|gb\|ABJ55352.1 | 1 |
| R.HYLSAVEEGNACITEDHLSQK.E | 2401.1204 | 2401.1089 | 3 | 1 | 5.2056 | 0.8697 | 917 | 1 30\|80 | gi\|116077632\|gb\|ABJ55352.1 | 1 |
| R.HYLSAVEEGNACITEDHLSQK.E | 2401.1204 | 2401.1089 | 3 | 1 | 4.9458 | 0.9274 | 1341.2 | 1 34\|80 | gi\|116077632\|gb\|ABJ55352.1 | 1 |
| R.HYLSAVEEGNACITEDHLSQK.E | 2401.1228 | 2401.1089 | 3 | 1 | 5.4745 | 0.9417 | 1528.9 | 1 34\|80 | gi\|116077632\|gb\|ABJ55352.1 | 1 |
| R.HYLSAVEEGNACITEDHLSQK.E | 2401.1224 | 2401.1089 | 3 | 1 | 5.5319 | 0.9111 | 1445.2 | 1 37\|80 | gi\|116077632\|gb\|ABJ55352.1 | 1 |
| R.DPGVEEFHSWQK.A | 1458.6705 | 1458.6648 | 2 | 1 | 2.848 | 0.7965 | 245.5 | 1 13\|22 | gi\|116076809\|gb\|ABJ54529.1 | 1 |
| R.DPGVEEFHSWQK.A | 1458.6723 | 1458.6648 | 2 | 1 | 3.3951 | 0.8077 | 277.7 | 1 14\|22 | gi\|116076809\|gb\|ABJ54529.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.9865 | 2026.9763 | 3 | 1 | 4.5061 | 0.7613 | 1350.3 | 1 31\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.9878 | 2026.9763 | 3 | 1 | 4.8887 | 0.8328 | 1456.2 | 1 30\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.9867 | 2026.9763 | 3 | 1 | 4.0151 | 0.7941 | 1767.4 | 1 35\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.9874 | 2026.9763 | 3 | 1 | 5.2683 | 0.8422 | 1866.1 | 1 38\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.9867 | 2026.9763 | 3 | 1 | 5.8415 | 0.8177 | 1935.1 | 1 36\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.9881 | 2026.9763 | 3 | 1 | 4.7839 | 0.8207 | 2801.3 | 1 39\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.985 | 2026.9763 | 3 | 1 | 4.9387 | 0.8794 | 2101.8 | 1 37\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HADQDAIYSIDVGNTTQTSTR.H | 2293.0814 | 2293.0691 | 3 | 1 | 3.8866 | 0.8944 | 1150.3 | 1 32\|80 | gi\|116076695\|gb\|ABJ54415.1 | 1 |
| K.IVSHSVQDAALGEGEGCLSVDR.N | 2299.1107 | 2299.0983 | 3 | 1 | 3.6259 | 0.816 | 1140.4 | 1 31\|84 | gi\|116076686\|gb\|ABJ54406.1 | 1 |
| K.HVPVYIQEDMVGHK.L | 1651.8343 | 1651.8261 | 3 | 1 | 4.5401 | 0.816 | 774.7 | 1 27\|52 | gi\|116076688\|gb\|ABJ54408.1 | 1 |
| K.HVPVYIQEDMVGHK.L | 1651.8336 | 1651.8261 | 3 | 1 | 4.243 | 0.8182 | 833.9 | 1 28\|52 | gi\|116076688\|gb\|ABJ54408.1 | 1 |
| K.HVPVYIQEDMVGHK.L | 1651.8321 | 1651.8261 | 3 | 1 | 4.5293 | 0.8252 | 900.9 | 1 28\|52 | gi\|116076688\|gb\|ABJ54408.1 | 1 |
| K.HVPVYIQEDMVGHK.L | 1651.8318 | 1651.8261 | 3 | 1 | 4.278 | 0.8135 | 880.3 | 1 28\|52 | gi\|116076688\|gb\|ABJ54408.1 | 1 |
| K.VHVHTEDPGLVMQEGLK.Y | 1888.9671 | 1888.9586 | 3 | 1 | 4.2188 | 0.7292 | 2268 | 1 36\|64 | gi\|116077568\|gb\|ABJ55288.1 | 1 |
| K.HVPVYIQEDMVGHK.L | 1651.8332 | 1651.8261 | 3 | 1 | 4.1905 | 0.8032 | 695.4 | 1 26\|52 | gi\|116076688\|gb\|ABJ54408.1 | 1 |
| K.VHVHTEDPGLVMQEGLK.Y | 1888.968 | 1888.9586 | 3 | 1 | 4.7185 | 0.6675 | 3924.7 | 1 40\|64 | gi\|116077568\|gb\|ABJ55288.1 | 1 |
| K.VHVHTEDPGLVMQEGLK.Y | 1888.9673 | 1888.9586 | 3 | 1 | 4.4985 | 0.6132 | 2724.7 | 1 36\|64 | gi\|116077568\|gb\|ABJ55288.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8151 | 1693.8081 | 4 | 1 | 4.6725 | 0.73 | 3000.3 | 1 45\|84 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.TFHTGGVASNTDITQGLPR.V | 1971.9996 | 1971.9883 | 3 | 1 | 3.6235 | 0.5548 | 812.6 | 1 29\|72 | gi\|116076300\|gb\|ABJ54020.1 | 1 |
| R.TFHTGGVASNTDITQGLPR.V | 1971.9999 | 1971.9883 | 3 | 1 | 4.3994 | 0.7262 | 1299.5 | 1 34\|72 | gi\|116076300\|gb\|ABJ54020.1 | 1 |
| R.TFHTGGVASNTDITQGLPR.V | 1971.9966 | 1971.9883 | 3 | 1 | 3.4995 | 0.6131 | 696.7 | 1 27\|72 | gi\|116076300\|gb\|ABJ54020.1 | 1 |
| R.TFHTGGVASNTDITQGLPR.V | 1971.9952 | 1971.9883 | 3 | 1 | 4.1356 | 0.6837 | 1054.3 | 1 31\|72 | gi\|116076300\|gb\|ABJ54020.1 | 1 |
| R.IGATTIYVTHDQTEAM*TLADR.I | 2323.1327 | 2323.1235 | 3 | 1 | 4.8843 | 0.8373 | 1710.6 | 1 39\|80 | gi\|116076082\|gb\|ABJ53802.1 | 1 |
| R.SDIVVVSGPSHAEETIVR.D | 1894.9953 | 1894.9869 | 3 | 1 | 4.0408 | 0.7703 | 910.7 | 1 27\|68 | gi\|116077571\|gb\|ABJ55291.1 | 1 |
| R.IGATTIYVTHDQTEAM*TLADR.I | 2323.1329 | 2323.1235 | 3 | 1 | 4.8856 | 0.8363 | 1246.9 | 1 34\|80 | gi\|116076082\|gb\|ABJ53802.1 | 1 |

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|---|---|---|---|---|---|---|---|---|---|---|
| R.SDIVVVSGPSHAEETIVR.D | 1894.9964 | 1894.9869 | 2 | 1 | 5.0495 | 0.7678 | 1326 | 1 22\|34 | gi\|116077571\|gb\|ABJ55291.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.9892 | 2026.9763 | 3 | 1 | 4.8826 | 0.7814 | 788.1 | 1 28\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| R.FMHHYNFPQYSVGETGR.Y | 2069.9379 | 2069.9287 | 3 | 1 | 3.7264 | 0.7935 | 1957.5 | 1 32\|64 | gi\|116076308\|gb\|ABJ54028.1 | 1 |
| R.SDIVVVSGPSHAEETIVR.D | 1894.9949 | 1894.9869 | 2 | 1 | 4.3572 | 0.7635 | 1190 | 1 22\|34 | gi\|116077571\|gb\|ABJ55291.1 | 1 |
| R.FMHHYNFPQYSVGETGR.Y | 2069.9377 | 2069.9287 | 3 | 1 | 4.1341 | 0.8486 | 1978 | 1 32\|64 | gi\|116076308\|gb\|ABJ54028.1 | 1 |
| R.SDIVVVSGPSHAEETIVR.D | 1894.9955 | 1894.9869 | 2 | 1 | 4.4921 | 0.7868 | 1835.9 | 1 26\|34 | gi\|116077571\|gb\|ABJ55291.1 | 1 |
| K.HADQDAIYSIDVGNTTQTSTR.H | 2293.0776 | 2293.0691 | 3 | 1 | 3.8575 | 0.7781 | 673.1 | 1 28\|80 | gi\|116076695\|gb\|ABJ54415.1 | 1 |
| R.FMHHYNFPQYSVGETGR.Y | 2069.9374 | 2069.9287 | 3 | 1 | 3.9073 | 0.7806 | 1891 | 1 32\|64 | gi\|116076308\|gb\|ABJ54028.1 | 1 |
| R.SDIVVVSGPSHAEETIVR.D | 1894.995 | 1894.9869 | 2 | 1 | 4.676 | 0.7797 | 1544.9 | 1 24\|34 | gi\|116077571\|gb\|ABJ55291.1 | 1 |
| K.VTAPSVNFDETTGDYSR.S | 1858.8554 | 1858.8454 | 2 | 1 | 3.963 | 0.9456 | 784.3 | 1 21\|32 | gi\|116076639\|gb\|ABJ54359.1 | 1 |
| K.TTICGTDLHIIK.G | 1371.7397 | 1371.7301 | 2 | 1 | 2.7913 | 0.3994 | 752.5 | 1 14\|22 | gi\|116077673\|gb\|ABJ55393.1 | 1 |
| K.TTICGTDLHIIK.G | 1371.7397 | 1371.7301 | 2 | 1 | 2.6385 | 0.398 | 805.1 | 1 14\|22 | gi\|116077673\|gb\|ABJ55393.1 | 1 |
| K.VTAPSVNFDETTGDYSR.S | 1858.8589 | 1858.8454 | 2 | 1 | 3.768 | 0.9362 | 577.8 | 1 19\|32 | gi\|116076639\|gb\|ABJ54359.1 | 1 |
| K.VTAPSVNFDETTGDYSR.S | 1858.8589 | 1858.8454 | 2 | 1 | 4.0996 | 0.938 | 672.6 | 1 19\|32 | gi\|116076639\|gb\|ABJ54359.1 | 1 |
| K.TTICGTDLHIIK.G | 1371.7375 | 1371.7301 | 2 | 1 | 2.8917 | 0.4891 | 695.8 | 1 14\|22 | gi\|116077673\|gb\|ABJ55393.1 | 1 |
| K.VTAPSVNFDETTGDYSR.S | 1858.8554 | 1858.8454 | 2 | 1 | 3.8249 | 0.9174 | 733.3 | 1 21\|32 | gi\|116076639\|gb\|ABJ54359.1 | 1 |
| K.HVPVYIQEDMVGHK.L | 1651.833 | 1651.8261 | 3 | 1 | 4.3929 | 0.8203 | 670 | 1 26\|52 | gi\|116076688\|gb\|ABJ54408.1 | 1 |
| K.TTICGTDLHIIK.G | 1371.7367 | 1371.7301 | 2 | 1 | 2.903 | 0.4755 | 774 | 1 14\|22 | gi\|116077673\|gb\|ABJ55393.1 | 1 |
| K.HVPVYIQEDMVGHK.L | 1651.833 | 1651.8261 | 3 | 1 | 4.5556 | 0.7843 | 868.2 | 1 28\|52 | gi\|116076688\|gb\|ABJ54408.1 | 1 |
| K.HVPVYIQEDMVGHK.L | 1651.832 | 1651.8261 | 3 | 1 | 4.2747 | 0.7914 | 920.2 | 1 28\|52 | gi\|116076688\|gb\|ABJ54408.1 | 1 |
| K.HVPVYIQEDMVGHK.L | 1651.8308 | 1651.8261 | 3 | 1 | 3.9576 | 0.757 | 698.7 | 1 26\|52 | gi\|116076688\|gb\|ABJ54408.1 | 1 |
| K.HVPVYIQEDMVGHK.L | 1651.833 | 1651.8261 | 3 | 1 | 4.4247 | 0.7468 | 771.2 | 1 26\|52 | gi\|116076688\|gb\|ABJ54408.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.986 | 2026.9763 | 3 | 1 | 4.5653 | 0.8603 | 1699.7 | 1 36\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.9878 | 2026.9763 | 3 | 1 | 4.67 | 0.8088 | 1194.9 | 1 32\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.9887 | 2026.9763 | 3 | 1 | 4.7702 | 0.8513 | 1019 | 1 30\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| R.RDTDDATHSHQFHQIEGLVVGK.N | 2490.2247 | 2490.212 | 4 | 1 | 4.6106 | 0.8354 | 1710.3 | 1 41\|126 | gi\|116077438\|gb\|ABJ55158.1 | 1 |
| R.RDTDDATHSHQFHQIEGLVVGK.N | 2490.2247 | 2490.212 | 4 | 1 | 4.8942 | 0.8559 | 1539.2 | 1 39\|126 | gi\|116077438\|gb\|ABJ55158.1 | 1 |
| R.RDTDDATHSHQFHQIEGLVVGK.N | 2490.2218 | 2490.212 | 4 | 1 | 4.6892 | 0.7481 | 1933.9 | 1 42\|126 | gi\|116077438\|gb\|ABJ55158.1 | 1 |
| R.RDTDDATHSHQFHQIEGLVVGK.N | 2490.2228 | 2490.212 | 4 | 1 | 5.056 | 0.7763 | 2029.9 | 1 44\|126 | gi\|116077438\|gb\|ABJ55158.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8175 | 1693.8081 | 4 | 1 | 4.4291 | 0.7149 | 2439.7 | 1 38\|84 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYILAEDYHQDYLR.K | 1835.8786 | 1835.8711 | 3 | 1 | 3.4003 | 0.8336 | 968.9 | 1 25\|52 | gi\|116076939\|gb\|ABJ54659.1 | 1 |
| R.HYILAEDYHQDYLR.K | 1835.8799 | 1835.8711 | 3 | 1 | 3.6887 | 0.7848 | 1477.1 | 1 28\|52 | gi\|116076939\|gb\|ABJ54659.1 | 1 |
| R.HYILAEDYHQDYLR.K | 1835.8799 | 1835.8711 | 3 | 1 | 3.8966 | 0.8311 | 1382.5 | 1 27\|52 | gi\|116076939\|gb\|ABJ54659.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9913 | 2010.9814 | 3 | 1 | 4.6859 | 0.6212 | 1972.6 | 1 35\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.99 | 2010.9814 | 3 | 1 | 5.1033 | 0.6524 | 2089.3 | 1 37\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9908 | 2010.9814 | 3 | 1 | 5.2541 | 0.7034 | 2521.4 | 1 37\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9908 | 2010.9814 | 3 | 1 | 4.9326 | 0.7162 | 2462.7 | 1 36\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.IVEQFHVAHISTGDM*FR.A | 2002.9898 | 2002.9804 | 3 | 1 | 3.5921 | 0.6876 | 1138.1 | 1 27\|64 | gi\|116076453\|gb\|ABJ54173.1 | 1 |
| K.IVEQFHVAHISTGDM*FR.A | 2002.9913 | 2002.9804 | 3 | 1 | 3.721 | 0.5716 | 1654.1 | 1 31\|64 | gi\|116076453\|gb\|ABJ54173.1 | 1 |
| K.HVPVYIQEDMVGHK.L | 1651.8352 | 1651.8261 | 3 | 1 | 4.4085 | 0.8423 | 858.8 | 1 29\|52 | gi\|116076688\|gb\|ABJ54408.1 | 1 |
| K.IGADAVIAEGM*EAGGHIGK.L | 1811.9059 | 1811.8956 | 3 | 1 | 3.6676 | 0.73 | 928.9 | 1 30\|72 | gi\|116077089\|gb\|ABJ54809.1 | 1 |
| K.HVPVYIQEDMVGHK.L | 1651.8321 | 1651.8261 | 3 | 1 | 4.393 | 0.778 | 934.8 | 1 28\|52 | gi\|116076688\|gb\|ABJ54408.1 | 1 |

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|---|---|---|---|---|---|---|---|---|---|---|
| K.IGADAVIAEGM*EAGGHIGK.L | 1811.9029 | 1811.8956 | 3 | 1 | 3.4315 | 0.7485 | 1042.4 | 1 31\|72 | gi\|116077089\|gb\|ABJ54809.1 | 1 |
| K.IGADAVIAEGM*EAGGHIGK.L | 1811.9033 | 1811.8956 | 3 | 1 | 3.8213 | 0.7522 | 868.2 | 1 30\|72 | gi\|116077089\|gb\|ABJ54809.1 | 1 |
| K.HVPVYIQEDMVGHK.L | 1651.8329 | 1651.8261 | 3 | 1 | 4.0863 | 0.8826 | 755.9 | 1 26\|52 | gi\|116076688\|gb\|ABJ54408.1 | 1 |
| K.IGADAVIAEGM*EAGGHIGK.L | 1811.9033 | 1811.8956 | 3 | 1 | 4.0455 | 0.8698 | 676.7 | 1 28\|72 | gi\|116077089\|gb\|ABJ54809.1 | 1 |
| K.IGADAVIAEGM*EAGGHIGK.L | 1811.9033 | 1811.8956 | 3 | 1 | 4.2865 | 0.8201 | 1051.1 | 1 32\|72 | gi\|116077089\|gb\|ABJ54809.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.9874 | 2026.9763 | 3 | 1 | 4.3714 | 0.7566 | 1021 | 1 30\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.9872 | 2026.9763 | 3 | 1 | 4.8267 | 0.8004 | 703.5 | 1 28\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.9883 | 2026.9763 | 3 | 1 | 3.7 | 0.7137 | 599.3 | 1 25\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8148 | 1693.8081 | 4 | 1 | 4.4676 | 0.8604 | 1718 | 1 36\|84 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.SAIIDYDIYHGHQIVSK.A | 1959.0048 | 1958.997 | 2 | 1 | 4.8473 | 0.8451 | 2209.3 | 1 22\|32 | gi\|116077715\|gb\|ABJ55435.1 | 1 |
| R.PFITHHNAQNIDMVLR.I | 1905.9838 | 1905.9752 | 3 | 1 | 3.7139 | 0.6058 | 971.2 | 1 25\|60 | gi\|116077666\|gb\|ABJ55386.1 | 1 |
| R.SAIIDYDIYHGHQIVSK.A | 1959.0057 | 1958.997 | 2 | 1 | 4.852 | 0.8597 | 1922.3 | 1 21\|32 | gi\|116077715\|gb\|ABJ55435.1 | 1 |
| R.SAIIDYDIYHGHQIVSK.A | 1959.0058 | 1958.997 | 2 | 1 | 5.2144 | 0.858 | 2022 | 1 22\|32 | gi\|116077715\|gb\|ABJ55435.1 | 1 |
| R.PFITHHNAQNIDMVLR.I | 1905.987 | 1905.9752 | 3 | 1 | 3.4428 | 0.6047 | 634 | 1 22\|60 | gi\|116077666\|gb\|ABJ55386.1 | 1 |
| R.TVTGEGVTVALGHSNATFDEAK.K | 2204.0921 | 2204.083 | 2 | 1 | 6.0968 | 0.8416 | 1619.6 | 1 24\|42 | gi\|116076809\|gb\|ABJ54529.1 | 1 |
| R.TVTGEGVTVALGHSNATFDEAK.K | 2204.0945 | 2204.083 | 2 | 1 | 5.7577 | 0.8132 | 1572 | 1 24\|42 | gi\|116076809\|gb\|ABJ54529.1 | 1 |
| R.TVTGEGVTVALGHSNATFDEAK.K | 2204.0918 | 2204.083 | 2 | 1 | 5.8719 | 0.7913 | 1736.1 | 1 24\|42 | gi\|116076809\|gb\|ABJ54529.1 | 1 |
| K.HVLIVYDDLSK.Q | 1301.7153 | 1301.71 | 2 | 1 | 3.3666 | 0.5929 | 1194.6 | 1 17\|20 | gi\|116077785\|gb\|ABJ55505.1 | 1 |
| K.DDVYTSVHLEEYESETR.D | 2071.9171 | 2071.9091 | 3 | 1 | 4.0983 | 0.7894 | 1113.7 | 1 29\|64 | gi\|116077011\|gb\|ABJ54731.1 | 1 |
| R.TVTGEGVTVALGHSNATFDEAK.K | 2204.0918 | 2204.083 | 2 | 1 | 6.034 | 0.8123 | 1301.2 | 1 22\|42 | gi\|116076809\|gb\|ABJ54529.1 | 1 |
| K.HVLIVYDDLSK.Q | 1301.7149 | 1301.71 | 2 | 1 | 2.8495 | 0.6486 | 1053.7 | 1 16\|20 | gi\|116077785\|gb\|ABJ55505.1 | 1 |
| R.DGHEIPVISGSVPPHLTR.G | 1911.0137 | 1911.0083 | 3 | 1 | 3.6489 | 0.7407 | 1044.3 | 1 34\|68 | gi\|116076777\|gb\|ABJ54497.1 | 1 |
| K.DDVYTSVHLEEYESETR.D | 2071.9153 | 2071.9091 | 3 | 1 | 3.8048 | 0.79 | 1110.9 | 1 28\|64 | gi\|116077011\|gb\|ABJ54731.1 | 1 |
| K.AINSASFDHHWGYQGELGCR.V | 2305.027 | 2305.0204 | 3 | 1 | 3.9261 | 0.8076 | 1519.9 | 1 32\|76 | gi\|116075938\|gb\|ABJ53658.1 | 1 |
| K.DDVYTSVHLEEYESETR.D | 2071.9162 | 2071.9091 | 3 | 1 | 3.9331 | 0.5985 | 1091.4 | 1 27\|64 | gi\|116077011\|gb\|ABJ54731.1 | 1 |
| K.AINSASFDHHWGYQGELGCR.V | 2305.0263 | 2305.0204 | 3 | 1 | 4.0388 | 0.7589 | 1393.4 | 1 32\|76 | gi\|116075938\|gb\|ABJ53658.1 | 1 |
| K.IVVNNPHEADIELSSLNK.S | 1992.0437 | 1992.0396 | 3 | 1 | 4.0058 | 0.7349 | 352.3 | 1 29\|68 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9864 | 2010.9814 | 3 | 1 | 5.845 | 0.7674 | 2667.5 | 1 37\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.IVVNNPHEADIELSSLNK.S | 1992.0456 | 1992.0396 | 3 | 1 | 4.2512 | 0.7526 | 633.7 | 1 33\|68 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9864 | 2010.9814 | 3 | 1 | 5.7944 | 0.7773 | 3383.2 | 1 41\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.AHAGLDIGDTAIGMHVK.H | 1705.8739 | 1705.869 | 3 | 1 | 3.8156 | 0.7067 | 1000.7 | 1 30\|64 | gi\|116077203\|gb\|ABJ54923.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9904 | 2010.9814 | 3 | 1 | 5.8092 | 0.7492 | 3430.8 | 1 42\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.AHAGLDIGDTAIGMHVK.H | 1705.8757 | 1705.869 | 3 | 1 | 3.6369 | 0.8571 | 946.9 | 1 29\|64 | gi\|116077203\|gb\|ABJ54923.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9924 | 2010.9814 | 3 | 1 | 5.8076 | 0.7838 | 3069.8 | 1 40\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.AHAGLDIGDTAIGMHVK.H | 1705.8779 | 1705.869 | 3 | 1 | 3.6418 | 0.7844 | 543.3 | 1 26\|64 | gi\|116077203\|gb\|ABJ54923.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9873 | 2010.9814 | 3 | 1 | 6.3194 | 0.7686 | 3433.2 | 1 41\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.IVVNNPHEADIELSSLNK.S | 1992.0461 | 1992.0396 | 2 | 1 | 4.9991 | 0.803 | 1801.4 | 1 24\|34 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.IVVNNPHEADIELSSLNK.S | 1992.047 | 1992.0396 | 2 | 1 | 4.9921 | 0.674 | 1910.8 | 1 24\|34 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HVPVYIQEDMVGHK.L | 1651.827 | 1651.8261 | 3 | 1 | 3.6696 | 0.852 | 720.6 | 1 26\|52 | gi\|116076688\|gb\|ABJ54408.1 | 1 |
| K.IVVNNPHEADIELSSLNK.S | 1992.045 | 1992.0396 | 3 | 1 | 3.823 | 0.767 | 666 | 1 34\|68 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.IVVNNPHEADIELSSLNK.S | 1992.045 | 1992.0396 | 3 | 1 | 3.6949 | 0.8322 | 825.3 | 1 38\|68 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HVPVYIQEDMVGHK.L | 1651.8294 | 1651.8261 | 3 | 1 | 3.6304 | 0.7917 | 826.6 | 1 26\|52 | gi\|116076688\|gb\|ABJ54408.1 | 1 |

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|---|---|---|---|---|---|---|---|---|---|---|
| K.IVVNNPHEADIELSSLNK.S | 1992.0468 | 1992.0396 | 3 | 1 | 4.3464 | 0.7682 | 678.2 | 1 34\|68 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HVPVYIQEDMVGHK.L | 1651.8312 | 1651.8261 | 3 | 1 | 4.206 | 0.8217 | 753 | 1 26\|52 | gi\|116076688\|gb\|ABJ54408.1 | 1 |
| K.IVVNNPHEADIELSSLNK.S | 1992.0447 | 1992.0396 | 3 | 1 | 3.7366 | 0.8018 | 692.8 | 1 35\|68 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| R.HIDTAAIYQNEESVGQAIK.D | 2087.0458 | 2087.0404 | 3 | 1 | 4.1137 | 0.7319 | 607.3 | 1 31\|72 | gi\|116076888\|gb\|ABJ54608.1 | 1 |
| K.IVVNNPHEADIELSSLNK.S | 1992.0468 | 1992.0396 | 3 | 1 | 3.8383 | 0.6805 | 631.5 | 1 33\|68 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| R.HQGVNQEYPANIVDYM*DVSPK.Q | 2420.128 | 2420.1187 | 3 | 1 | 4.8558 | 0.8619 | 748.6 | 1 29\|80 | gi\|116077011\|gb\|ABJ54731.1 | 1 |
| K.IVVNNPHEADIELSSLNK.S | 1992.0436 | 1992.0396 | 3 | 1 | 3.6023 | 0.7049 | 701.1 | 1 34\|68 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| R.HQGVNQEYPANIVDYM*DVSPK.Q | 2420.1246 | 2420.1187 | 3 | 1 | 3.9257 | 0.8809 | 600.8 | 1 29\|80 | gi\|116077011\|gb\|ABJ54731.1 | 1 |
| R.HQGVNQEYPANIVDYM*DVSPK.Q | 2420.1264 | 2420.1187 | 3 | 1 | 5.1301 | 0.7356 | 853.4 | 1 33\|80 | gi\|116077011\|gb\|ABJ54731.1 | 1 |
| R.DTDDATHSHQFHQIEGLVVGK.N | 2334.119 | 2334.1109 | 3 | 1 | 5.29 | 0.72 | 1498.7 | 1 33\|80 | gi\|116077438\|gb\|ABJ55158.1 | 1 |
| R.HQGVNQEYPANIVDYM*DVSPK.Q | 2420.1269 | 2420.1187 | 3 | 1 | 4.1085 | 0.8261 | 781 | 1 31\|80 | gi\|116077011\|gb\|ABJ54731.1 | 1 |
| R.HIDTAAIYQNEESVGQAIK.D | 2087.0494 | 2087.0404 | 2 | 1 | 6.1146 | 0.8838 | 2698.9 | 1 28\|36 | gi\|116076888\|gb\|ABJ54608.1 | 1 |
| R.DTDDATHSHQFHQIEGLVVGK.N | 2334.1239 | 2334.1109 | 3 | 1 | 6.2083 | 0.6797 | 1809.5 | 1 33\|80 | gi\|116077438\|gb\|ABJ55158.1 | 1 |
| R.HQGVNQEYPANIVDYM*DVSPK.Q | 2420.1321 | 2420.1187 | 3 | 1 | 4.5043 | 0.8446 | 907.6 | 1 33\|80 | gi\|116077011\|gb\|ABJ54731.1 | 1 |
| R.HIDTAAIYQNEESVGQAIK.D | 2087.0523 | 2087.0404 | 2 | 1 | 6.4107 | 0.8643 | 2985.7 | 1 31\|36 | gi\|116076888\|gb\|ABJ54608.1 | 1 |
| R.DTDDATHSHQFHQIEGLVVGK.N | 2334.1188 | 2334.1109 | 3 | 1 | 5.7897 | 0.7959 | 1630.7 | 1 34\|80 | gi\|116077438\|gb\|ABJ55158.1 | 1 |
| K.AVVHGDVEGGSVM*AGQIAGLVSK.E | 2197.136 | 2197.1281 | 3 | 1 | 3.9797 | 0.8178 | 1362.1 | 1 31\|88 | gi\|116077089\|gb\|ABJ54809.1 | 1 |
| K.AVVHGDVEGGSVM*AGQIAGLVSK.E | 2197.136 | 2197.1281 | 3 | 1 | 4.0376 | 0.8119 | 1125.7 | 1 31\|88 | gi\|116077089\|gb\|ABJ54809.1 | 1 |
| R.TLHSGQHFAQGIVADLK.E | 1821.9666 | 1821.9606 | 3 | 1 | 3.851 | 0.8638 | 1494.1 | 1 30\|64 | gi\|116076189\|gb\|ABJ53909.1 | 1 |
| R.TLHSGQHFAQGIVADLK.E | 1821.9666 | 1821.9606 | 3 | 1 | 4.0887 | 0.7902 | 1845.2 | 1 34\|64 | gi\|116076189\|gb\|ABJ53909.1 | 1 |
| R.DGHEIPVISGSVPPHLTR.G | 1911.0153 | 1911.0083 | 3 | 1 | 4.1069 | 0.7079 | 1367.3 | 1 38\|68 | gi\|116076777\|gb\|ABJ54497.1 | 1 |
| R.DGHEIPVISGSVPPHLTR.G | 1911.0153 | 1911.0083 | 3 | 1 | 3.8924 | 0.722 | 972.7 | 1 34\|68 | gi\|116076777\|gb\|ABJ54497.1 | 1 |
| R.DGHEIPVISGSVPPHLTR.G | 1911.0141 | 1911.0083 | 3 | 1 | 4.0729 | 0.771 | 1281 | 1 37\|68 | gi\|116076777\|gb\|ABJ54497.1 | 1 |
| R.DGHEIPVISGSVPPHLTR.G | 1911.0153 | 1911.0083 | 3 | 1 | 4.5913 | 0.7096 | 1194.2 | 1 36\|68 | gi\|116076777\|gb\|ABJ54497.1 | 1 |
| R.DGHEIPVISGSVPPHLTR.G | 1911.015 | 1911.0083 | 3 | 1 | 4.4182 | 0.7657 | 937.7 | 1 33\|68 | gi\|116076777\|gb\|ABJ54497.1 | 1 |
| K.SFIHQQEEISFVK.N | 1591.818 | 1591.8115 | 3 | 1 | 4.4705 | 0.5459 | 1167.2 | 1 29\|48 | gi\|116076360\|gb\|ABJ54080.1 | 1 |
| K.SFIHQQEEISFVK.N | 1591.817 | 1591.8115 | 3 | 1 | 4.478 | 0.5382 | 1254.7 | 1 30\|48 | gi\|116076360\|gb\|ABJ54080.1 | 1 |
| R.TLHSGQHFAQGIVADLK.E | 1821.9651 | 1821.9606 | 3 | 1 | 4.3143 | 0.8785 | 2232.2 | 1 35\|64 | gi\|116076189\|gb\|ABJ53909.1 | 1 |
| K.SFIHQQEEISFVK.N | 1591.8157 | 1591.8115 | 2 | 1 | 3.8009 | 0.6174 | 1499.8 | 1 19\|24 | gi\|116076360\|gb\|ABJ54080.1 | 1 |
| R.TLHSGQHFAQGIVADLK.E | 1821.9684 | 1821.9606 | 3 | 1 | 4.5987 | 0.8354 | 1835.3 | 1 34\|64 | gi\|116076189\|gb\|ABJ53909.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9902 | 2010.9814 | 3 | 1 | 5.8815 | 0.6993 | 2510.7 | 1 39\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.SFIHQQEEISFVK.N | 1591.8183 | 1591.8115 | 2 | 1 | 4.2972 | 0.6252 | 1703.8 | 1 18\|24 | gi\|116076360\|gb\|ABJ54080.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9906 | 2010.9814 | 3 | 1 | 5.5701 | 0.6977 | 2586.9 | 1 37\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.SFIHQQEEISFVK.N | 1591.8188 | 1591.8115 | 2 | 1 | 4.4268 | 0.6123 | 1804.6 | 1 19\|24 | gi\|116076360\|gb\|ABJ54080.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9906 | 2010.9814 | 3 | 1 | 5.8277 | 0.7527 | 2823.7 | 1 37\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9889 | 2010.9814 | 3 | 1 | 5.38 | 0.7672 | 2105.9 | 1 39\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| R.FHHVSTDEVYGDLPLR.E | 1884.9314 | 1884.9239 | 2 | 1 | 4.8608 | 0.8029 | 1917.6 | 1 24\|30 | gi\|116077388\|gb\|ABJ55108.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9831 | 2010.9814 | 3 | 1 | 5.5088 | 0.7368 | 2065.5 | 1 38\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| R.FHHVSTDEVYGDLPLR.E | 1884.9272 | 1884.9239 | 2 | 1 | 4.545 | 0.778 | 1546.8 | 1 22\|30 | gi\|116077388\|gb\|ABJ55108.1 | 1 |
| R.FHHVSTDEVYGDLPLR.E | 1884.9323 | 1884.9239 | 2 | 1 | 5.0167 | 0.8221 | 1750.4 | 1 23\|30 | gi\|116077388\|gb\|ABJ55108.1 | 1 |
| K.TGLHEAVVTGTALIK.G | 1509.8682 | 1509.8635 | 2 | 1 | 3.7217 | 0.8087 | 1559.1 | 1 20\|28 | gi\|116076138\|gb\|ABJ53858.1 | 1 |
| K.HDIENGLTIETGWQK.N | 1740.861 | 1740.8551 | 3 | 1 | 4.0551 | 0.8041 | 1473.8 | 1 28\|56 | gi\|116077353\|gb\|ABJ55073.1 | 1 |

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|---|---|---|---|---|---|---|---|---|---|---|
| K.TGLHEAVVTGTALIK.G | 1509.8682 | 1509.8635 | 2 | 1 | 4.5275 | 0.7501 | 1788 | 1 | 20\|28 | gi\|116076138\|gb\|ABJ53858.1 | 1 |
| K.HDIENGLTIETGWQK.N | 1740.862 | 1740.8551 | 3 | 1 | 3.8276 | 0.8074 | 1437.4 | 1 | 26\|56 | gi\|116077353\|gb\|ABJ55073.1 | 1 |
| K.TGLHEAVVTGTALIK.G | 1509.8693 | 1509.8635 | 2 | 1 | 4.1699 | 0.763 | 1610.6 | 1 | 20\|28 | gi\|116076138\|gb\|ABJ53858.1 | 1 |
| K.TGLHEAVVTGTALIK.G | 1509.8691 | 1509.8635 | 2 | 1 | 3.9837 | 0.6952 | 1385.6 | 1 | 20\|28 | gi\|116076138\|gb\|ABJ53858.1 | 1 |
| R.DTDDATHSHQFHQIEGLVVGK.N | 2334.1247 | 2334.1109 | 3 | 1 | 4.7965 | 0.7969 | 1372.3 | 1 | 30\|80 | gi\|116077438\|gb\|ABJ55158.1 | 1 |
| R.DTDDATHSHQFHQIEGLVVGK.N | 2334.119 | 2334.1109 | 3 | 1 | 4.3314 | 0.6266 | 1567.4 | 1 | 34\|80 | gi\|116077438\|gb\|ABJ55158.1 | 1 |
| K.HDIENGLTIETGWQK.N | 1740.8624 | 1740.8551 | 2 | 1 | 5.2354 | 0.8021 | 2828.5 | 1 | 25\|28 | gi\|116077353\|gb\|ABJ55073.1 | 1 |
| K.TYLHNAEIIENIGHAANR.G | 2036.0372 | 2036.0308 | 3 | 1 | 5.3121 | 0.723 | 2119.9 | 1 | 34\|68 | gi\|116076228\|gb\|ABJ53948.1 | 1 |
| K.HDIENGLTIETGWQK.N | 1740.8606 | 1740.8551 | 2 | 1 | 5.1617 | 0.835 | 3054.4 | 1 | 24\|28 | gi\|116077353\|gb\|ABJ55073.1 | 1 |
| K.HIGPSLDVPAGDIGVGGR.E | 1716.9098 | 1716.9028 | 3 | 1 | 3.6288 | 0.8395 | 1064.1 | 1 | 27\|68 | gi\|116077541\|gb\|ABJ55261.1 | 1 |
| R.DTDDATHSHQFHQIEGLVVGK.N | 2334.1208 | 2334.1109 | 3 | 1 | 5.1799 | 0.7367 | 2081 | 1 | 35\|80 | gi\|116077438\|gb\|ABJ55158.1 | 1 |
| K.TYLHNAEIIENIGHAANR.G | 2036.0403 | 2036.0308 | 3 | 1 | 5.1758 | 0.7937 | 1883.1 | 1 | 33\|68 | gi\|116076228\|gb\|ABJ53948.1 | 1 |
| K.HDIENGLTIETGWQK.N | 1740.862 | 1740.8551 | 2 | 1 | 5.4944 | 0.81 | 3034.9 | 1 | 25\|28 | gi\|116077353\|gb\|ABJ55073.1 | 1 |
| K.HIGPSLDVPAGDIGVGGR.E | 1716.9093 | 1716.9028 | 3 | 1 | 3.518 | 0.8178 | 1150.7 | 1 | 31\|68 | gi\|116077541\|gb\|ABJ55261.1 | 1 |
| K.HIGPSLDVPAGDIGVGGR.E | 1716.9087 | 1716.9028 | 3 | 1 | 4.3665 | 0.8793 | 1417.1 | 1 | 30\|68 | gi\|116077541\|gb\|ABJ55261.1 | 1 |
| K.HIGPSLDVPAGDIGVGGR.E | 1716.9085 | 1716.9028 | 3 | 1 | 4.3926 | 0.7742 | 1982.1 | 1 | 38\|68 | gi\|116077541\|gb\|ABJ55261.1 | 1 |
| K.HIGPSLDVPAGDIGVGGR.E | 1716.9101 | 1716.9028 | 2 | 1 | 4.8081 | 0.8079 | 1606 | 1 | 26\|34 | gi\|116077541\|gb\|ABJ55261.1 | 1 |
| K.HIGPSLDVPAGDIGVGGR.E | 1716.9089 | 1716.9028 | 2 | 1 | 4.2995 | 0.7554 | 1631.8 | 1 | 26\|34 | gi\|116077541\|gb\|ABJ55261.1 | 1 |
| K.HIGPSLDVPAGDIGVGGR.E | 1716.9089 | 1716.9028 | 2 | 1 | 4.6026 | 0.7649 | 1840.1 | 1 | 27\|34 | gi\|116077541\|gb\|ABJ55261.1 | 1 |
| R.DGHEIPVISGSVPPHLTR.G | 1911.0146 | 1911.0083 | 3 | 1 | 3.6527 | 0.7631 | 967.5 | 1 | 35\|68 | gi\|116076777\|gb\|ABJ54497.1 | 1 |
| K.HIGPSLDVPAGDIGVGGR.E | 1716.9101 | 1716.9028 | 2 | 1 | 4.6342 | 0.8186 | 2375.2 | 1 | 29\|34 | gi\|116077541\|gb\|ABJ55261.1 | 1 |
| R.DGHEIPVISGSVPPHLTR.G | 1911.0146 | 1911.0083 | 3 | 1 | 3.6745 | 0.6824 | 1193 | 1 | 36\|68 | gi\|116076777\|gb\|ABJ54497.1 | 1 |
| K.HIGPSLDVPAGDIGVGGR.E | 1716.9095 | 1716.9028 | 2 | 1 | 4.3295 | 0.7682 | 1264.6 | 1 | 23\|34 | gi\|116077541\|gb\|ABJ55261.1 | 1 |
| R.DTDDATHSHQFHQIEGLVVGK.N | 2334.1201 | 2334.1109 | 3 | 1 | 5.3181 | 0.7641 | 1533.1 | 1 | 31\|80 | gi\|116077438\|gb\|ABJ55158.1 | 1 |
| R.DGHEIPVISGSVPPHLTR.G | 1911.0135 | 1911.0083 | 3 | 1 | 3.8806 | 0.6576 | 787.5 | 1 | 31\|68 | gi\|116076777\|gb\|ABJ54497.1 | 1 |
| R.HFDMAETVELPK.Q | 1416.6882 | 1416.6828 | 2 | 1 | 3.8914 | 0.9211 | 1559.9 | 1 | 19\|22 | gi\|116076859\|gb\|ABJ54579.1 | 1 |
| R.HFDMAETVELPK.Q | 1416.6882 | 1416.6828 | 2 | 1 | 3.9474 | 0.9686 | 1620.1 | 1 | 19\|22 | gi\|116076859\|gb\|ABJ54579.1 | 1 |
| R.HFDMAETVELPK.Q | 1416.6872 | 1416.6828 | 2 | 1 | 4.0135 | 0.9126 | 1580.6 | 1 | 19\|22 | gi\|116076859\|gb\|ABJ54579.1 | 1 |
| R.HFDMAETVELPK.Q | 1416.6844 | 1416.6828 | 2 | 1 | 4.3138 | 0.8608 | 1389.2 | 1 | 19\|22 | gi\|116076859\|gb\|ABJ54579.1 | 1 |
| K.DVEEYIPHADLR.L | 1456.7112 | 1456.7067 | 2 | 1 | 3.6319 | 0.5973 | 917.5 | 1 | 18\|22 | gi\|116077681\|gb\|ABJ55401.1 | 1 |
| K.DVEEYIPHADLR.L | 1456.7114 | 1456.7067 | 2 | 1 | 3.1485 | 0.5934 | 722.7 | 1 | 16\|22 | gi\|116077681\|gb\|ABJ55401.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9869 | 2010.9814 | 3 | 1 | 5.4717 | 0.6582 | 3172.4 | 1 | 39\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.DVEEYIPHADLR.L | 1456.7114 | 1456.7067 | 2 | 1 | 3.705 | 0.682 | 1162.9 | 1 | 19\|22 | gi\|116077681\|gb\|ABJ55401.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9889 | 2010.9814 | 3 | 1 | 5.0725 | 0.6747 | 2472.6 | 1 | 36\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9884 | 2010.9814 | 3 | 1 | 5.7085 | 0.7029 | 2817.7 | 1 | 39\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| R.ATISM*IQSMVEHR.L | 1518.7455 | 1518.7403 | 2 | 1 | 2.5847 | 0.1012 | 383.9 | 2 | 13\|24 | gi\|116076371\|gb\|ABJ54091.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9862 | 2010.9814 | 3 | 1 | 5.1565 | 0.7129 | 3040 | 1 | 39\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HIGPSLDVPAGDIGVGGR.E | 1716.9078 | 1716.9028 | 3 | 1 | 4.3695 | 0.8902 | 1490.2 | 1 | 34\|68 | gi\|116077541\|gb\|ABJ55261.1 | 1 |
| K.HIGPSLDVPAGDIGVGGR.E | 1716.9078 | 1716.9028 | 3 | 1 | 4.7882 | 0.8355 | 1687.8 | 1 | 34\|68 | gi\|116077541\|gb\|ABJ55261.1 | 1 |
| K.HIGPSLDVPAGDIGVGGR.E | 1716.9095 | 1716.9028 | 3 | 1 | 3.9422 | 0.8454 | 1819.8 | 1 | 35\|68 | gi\|116077541\|gb\|ABJ55261.1 | 1 |
| K.AEAAEQFGDEQVHIWR.R | 1885.8912 | 1885.8828 | 2 | 1 | 4.4127 | 0.8734 | 2263.9 | 1 | 22\|30 | gi\|116077237\|gb\|ABJ54957.1 | 1 |
| K.HIGPSLDVPAGDIGVGGR.E | 1716.9091 | 1716.9028 | 3 | 1 | 4.4087 | 0.7845 | 1419.2 | 1 | 32\|68 | gi\|116077541\|gb\|ABJ55261.1 | 1 |

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|---|---|---|---|---|---|---|---|---|---|---|
| K.FHGLTDVETIYR.K | 1450.7391 | 1450.7325 | 2 | 1 | 3.3285 | 0.6666 | 798.3 | 1 19\|22 | gi\|116077666\|gb\|ABJ55386.1 | 1 |
| K.AEAAEQFGDEQVHIWR.R | 1885.893 | 1885.8828 | 2 | 1 | 4.1005 | 0.8334 | 1618.4 | 1 19\|30 | gi\|116077237\|gb\|ABJ54957.1 | 1 |
| R.ENDLLLITADHGNDPTYAGTDHTR.E | 2639.2459 | 2639.2332 | 3 | 1 | 4.6104 | 0.7971 | 793.3 | 1 30\|92 | gi\|116076924\|gb\|ABJ54644.1 | 1 |
| K.FHGLTDVETIYR.K | 1450.74 | 1450.7325 | 2 | 1 | 3.4815 | 0.7061 | 579.2 | 1 17\|22 | gi\|116077666\|gb\|ABJ55386.1 | 1 |
| R.EGYEM*SFDTM*VLTGDNAANPHGIPAANK.V | 2982.3402 | 2982.3244 | 3 | 1 | 5.0529 | 0.9291 | 1016.9 | 1 32\|108 | gi\|116076699\|gb\|ABJ54419.1 | 1 |
| R.DGHEIPVISGSVPPHLTR.G | 1911.0128 | 1911.0083 | 3 | 1 | 3.7882 | 0.7356 | 1026.8 | 1 35\|68 | gi\|116076777\|gb\|ABJ54497.1 | 1 |
| R.ENDLLLITADHGNDPTYAGTDHTR.E | 2639.2412 | 2639.2332 | 3 | 1 | 5.1877 | 0.8583 | 1223.4 | 1 35\|92 | gi\|116076924\|gb\|ABJ54644.1 | 1 |
| R.EGYEM*SFDTM*VLTGDNAANPHGIPAANK.V | 2982.3345 | 2982.3244 | 3 | 1 | 5.309 | 0.903 | 777.2 | 1 31\|108 | gi\|116076699\|gb\|ABJ54419.1 | 1 |
| R.DGHEIPVISGSVPPHLTR.G | 1911.0128 | 1911.0083 | 3 | 1 | 3.557 | 0.7605 | 1005.3 | 1 34\|68 | gi\|116076777\|gb\|ABJ54497.1 | 1 |
| K.AEAAEQFGDEQVHIWR.R | 1885.889 | 1885.8828 | 2 | 1 | 2.885 | 0.617 | 746 | 1 17\|30 | gi\|116077237\|gb\|ABJ54957.1 | 1 |
| R.EGYEM*SFDTM*VLTGDNAANPHGIPAANK.V | 2982.3345 | 2982.3244 | 3 | 1 | 5.4987 | 0.9108 | 1195.8 | 1 34\|108 | gi\|116076699\|gb\|ABJ54419.1 | 1 |
| R.ENDLLLITADHGNDPTYAGTDHTR.E | 2639.2428 | 2639.2332 | 3 | 1 | 4.6669 | 0.7645 | 693.4 | 1 26\|92 | gi\|116076924\|gb\|ABJ54644.1 | 1 |
| R.DGHEIPVISGSVPPHLTR.G | 1911.0122 | 1911.0083 | 3 | 1 | 4.4703 | 0.704 | 995.8 | 1 34\|68 | gi\|116076777\|gb\|ABJ54497.1 | 1 |
| R.ENDLLLITADHGNDPTYAGTDHTR.E | 2639.243 | 2639.2332 | 3 | 1 | 4.7379 | 0.8003 | 1167.3 | 1 33\|92 | gi\|116076924\|gb\|ABJ54644.1 | 1 |
| R.DGHEIPVISGSVPPHLTR.G | 1911.0132 | 1911.0083 | 3 | 1 | 3.8919 | 0.6784 | 866.5 | 1 33\|68 | gi\|116076777\|gb\|ABJ54497.1 | 1 |
| R.EGYEM*SFDTM*VLTGDNAANPHGIPAANK.V | 2982.3373 | 2982.3244 | 3 | 1 | 5.6709 | 0.9176 | 1149.1 | 1 35\|108 | gi\|116076699\|gb\|ABJ54419.1 | 1 |
| R.EGYEM*SFDTM*VLTGDNAANPHGIPAANK.V | 2982.3378 | 2982.3244 | 3 | 1 | 4.8062 | 0.8724 | 906.2 | 1 31\|108 | gi\|116076699\|gb\|ABJ54419.1 | 1 |
| K.DVEEYIPHADLR.L | 1456.7128 | 1456.7067 | 2 | 1 | 3.4691 | 0.6361 | 836 | 1 18\|22 | gi\|116077681\|gb\|ABJ55401.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9886 | 2010.9814 | 3 | 1 | 5.2643 | 0.7159 | 1638.7 | 1 33\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9875 | 2010.9814 | 3 | 1 | 5.5901 | 0.6577 | 2815 | 1 40\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.ELADAAVSTIEIER.A | 1516.7917 | 1516.7853 | 2 | 1 | 4.2911 | 0.7543 | 1176.3 | 1 19\|26 | gi\|116075978\|gb\|ABJ53698.1 | 1 |
| K.ELADAAVSTIEIER.A | 1516.7897 | 1516.7853 | 2 | 1 | 3.7199 | 0.8577 | 877.3 | 1 17\|26 | gi\|116075978\|gb\|ABJ53698.1 | 1 |
| K.ELADAAVSTIEIER.A | 1516.7897 | 1516.7853 | 2 | 1 | 4.6114 | 0.792 | 1210.4 | 1 20\|26 | gi\|116075978\|gb\|ABJ53698.1 | 1 |
| K.HIGPSLDVPAGDIGVGGR.E | 1716.9085 | 1716.9028 | 3 | 1 | 3.5867 | 0.8286 | 1201.2 | 1 29\|68 | gi\|116077541\|gb\|ABJ55261.1 | 1 |
| K.GYEVIDFGTYDHTR.T | 1672.7673 | 1672.7602 | 2 | 1 | 4.365 | 0.7357 | 1939.6 | 1 22\|26 | gi\|116077705\|gb\|ABJ55425.1 | 1 |
| K.GYEVIDFGTYDHTR.T | 1672.7673 | 1672.7602 | 2 | 1 | 4.4343 | 0.8358 | 1809.9 | 1 22\|26 | gi\|116077705\|gb\|ABJ55425.1 | 1 |
| K.GYEVIDFGTYDHTR.T | 1672.7669 | 1672.7602 | 2 | 1 | 3.9543 | 0.8229 | 1804.5 | 1 22\|26 | gi\|116077705\|gb\|ABJ55425.1 | 1 |
| R.DGHEIPVISGSVPPHLTR.G | 1911.0146 | 1911.0083 | 3 | 1 | 4.0919 | 0.688 | 846 | 1 31\|68 | gi\|116076777\|gb\|ABJ54497.1 | 1 |
| R.DGHEIPVISGSVPPHLTR.G | 1911.0146 | 1911.0083 | 3 | 1 | 4.1847 | 0.6218 | 914.2 | 1 31\|68 | gi\|116076777\|gb\|ABJ54497.1 | 1 |
| K.GYEVIDFGTYDHTR.T | 1672.7671 | 1672.7602 | 2 | 1 | 4.3667 | 0.8522 | 1692.8 | 1 21\|26 | gi\|116077705\|gb\|ABJ55425.1 | 1 |
| R.DGHEIPVISGSVPPHLTR.G | 1911.0137 | 1911.0083 | 3 | 1 | 3.4011 | 0.7347 | 908.5 | 1 32\|68 | gi\|116076777\|gb\|ABJ54497.1 | 1 |
| R.DAIDTHFTDTDGQEFTM*IDTAGM*R.K | 2720.156 | 2720.1451 | 3 | 1 | 5.6315 | 0.9321 | 2215.6 | 1 38\|92 | gi\|116076455\|gb\|ABJ54175.1 | 1 |
| R.DAIDTHFTDTDGQEFTM*IDTAGM*R.K | 2720.1538 | 2720.1451 | 3 | 1 | 5.1594 | 0.8962 | 2034.4 | 1 35\|92 | gi\|116076455\|gb\|ABJ54175.1 | 1 |
| R.DAIDTHFTDTDGQEFTM*IDTAGM*R.K | 2720.1548 | 2720.1451 | 3 | 1 | 4.4845 | 0.9695 | 1569.9 | 1 33\|92 | gi\|116076455\|gb\|ABJ54175.1 | 1 |
| R.DAIDTHFTDTDGQEFTM*IDTAGM*R.K | 2720.1564 | 2720.1451 | 3 | 1 | 4.185 | 0.9549 | 1391.3 | 1 31\|92 | gi\|116076455\|gb\|ABJ54175.1 | 1 |
| R.DLYQQHHNVILPDEVLK.A | 2061.0842 | 2061.0764 | 3 | 1 | 4.4315 | 0.6348 | 1231.2 | 1 27\|64 | gi\|116076544\|gb\|ABJ54264.1 | 1 |
| R.DLYQQHHNVILPDEVLK.A | 2061.0842 | 2061.0764 | 3 | 1 | 4.9975 | 0.6651 | 1731.7 | 1 31\|64 | gi\|116076544\|gb\|ABJ54264.1 | 1 |
| R.DLYQQHHNVILPDEVLK.A | 2061.0842 | 2061.0764 | 3 | 1 | 4.9851 | 0.6827 | 1700.7 | 1 32\|64 | gi\|116076544\|gb\|ABJ54264.1 | 1 |
| R.DLYQQHHNVILPDEVLK.A | 2061.0858 | 2061.0764 | 3 | 1 | 4.6723 | 0.6624 | 1646.7 | 1 31\|64 | gi\|116076544\|gb\|ABJ54264.1 | 1 |
| R.DLYQQHHNVILPDEVLK.A | 2061.0838 | 2061.0764 | 3 | 1 | 4.693 | 0.6638 | 1688.6 | 1 30\|64 | gi\|116076544\|gb\|ABJ54264.1 | 1 |
| K.EYADYLHEDLAIR.K | 1607.7756 | 1607.77 | 2 | 1 | 4.3881 | 0.7726 | 513.8 | 1 17\|24 | gi\|116075978\|gb\|ABJ53698.1 | 1 |
| K.EYADYLHEDLAIR.K | 1607.7765 | 1607.77 | 2 | 1 | 3.8516 | 0.6518 | 534.9 | 1 15\|24 | gi\|116075978\|gb\|ABJ53698.1 | 1 |

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|---|---|---|---|---|---|---|---|---|---|---|
| K.EYADYLHEDLAIR.K | 1607.7765 | 1607.77 | 2 | 1 | 4.2707 | 0.7707 | 584.6 | 1 18\|24 | gi\|116075978\|gb\|ABJ53698.1 | 1 |
| K.EYADYLHEDLAIR.K | 1607.7764 | 1607.77 | 2 | 1 | 3.8106 | 0.6794 | 610.3 | 1 17\|24 | gi\|116075978\|gb\|ABJ53698.1 | 1 |
| R.LPLYHLDVYR.I | 1288.71 | 1288.7048 | 2 | 1 | 2.5937 | 0.8422 | 1014.2 | 1 14\|18 | gi\|116076489\|gb\|ABJ54209.1 | 1 |
| K.DMYLLHHEEIESLAK.N | 1827.899 | 1827.8946 | 2 | 1 | 3.9803 | 0.8655 | 1161.8 | 1 19\|28 | gi\|116077342\|gb\|ABJ55062.1 | 1 |
| K.GYEVIDFGTYDHTR.T | 1672.7665 | 1672.7602 | 2 | 1 | 3.5418 | 0.7524 | 1649.4 | 1 22\|26 | gi\|116077705\|gb\|ABJ55425.1 | 1 |
| R.DGHEIPVISGSVPPHLTR.G | 1911.0152 | 1911.0083 | 3 | 1 | 3.6098 | 0.6099 | 1013.4 | 1 34\|68 | gi\|116076777\|gb\|ABJ54497.1 | 1 |
| K.GYEVIDFGTYDHTR.T | 1672.7651 | 1672.7602 | 2 | 1 | 4.0808 | 0.7752 | 1335.7 | 1 19\|26 | gi\|116077705\|gb\|ABJ55425.1 | 1 |
| R.DGHEIPVISGSVPPHLTR.G | 1911.0141 | 1911.0083 | 3 | 1 | 3.4612 | 0.7427 | 748.8 | 1 29\|68 | gi\|116076777\|gb\|ABJ54497.1 | 1 |
| R.GM*ITAVSHLVTVEEVN.- | 1714.8758 | 1714.868 | 2 | 1 | 2.4117 | 0.5508 | 693.1 | 1 17\|30 | gi\|116077312\|gb\|ABJ55032.1 | 1 |
| R.FPVINQHQVVVGVVTM*R.D | 1939.0655 | 1939.0582 | 3 | 1 | 4.4046 | 0.7652 | 1944.5 | 1 31\|64 | gi\|116077715\|gb\|ABJ55435.1 | 1 |
| R.FPVINQHQVVVGVVTM*R.D | 1939.066 | 1939.0582 | 3 | 1 | 3.8027 | 0.8208 | 1077.7 | 1 25\|64 | gi\|116077715\|gb\|ABJ55435.1 | 1 |
| K.HPETGAVIIGPNELITEDK.A | 2033.063 | 2033.055 | 3 | 1 | 4.7321 | 0.7921 | 2026.9 | 1 32\|72 | gi\|116076300\|gb\|ABJ54020.1 | 1 |
| K.HPETGAVIIGPNELITEDK.A | 2033.061 | 2033.055 | 3 | 1 | 4.3296 | 0.7998 | 1240.8 | 1 28\|72 | gi\|116076300\|gb\|ABJ54020.1 | 1 |
| R.FPVINQHQVVVGVVTM*R.D | 1939.0642 | 1939.0582 | 3 | 1 | 4.7453 | 0.7556 | 1825.1 | 1 31\|64 | gi\|116077715\|gb\|ABJ55435.1 | 1 |
| K.HPETGAVIIGPNELITEDK.A | 2033.061 | 2033.055 | 3 | 1 | 4.359 | 0.8191 | 1644.8 | 1 31\|72 | gi\|116076300\|gb\|ABJ54020.1 | 1 |
| K.HPETGAVIIGPNELITEDK.A | 2033.0639 | 2033.055 | 3 | 1 | 4.4304 | 0.8383 | 1893.5 | 1 31\|72 | gi\|116076300\|gb\|ABJ54020.1 | 1 |
| K.HPETGAVIIGPNELITEDK.A | 2033.0623 | 2033.055 | 3 | 1 | 4.4202 | 0.8458 | 1958 | 1 33\|72 | gi\|116076300\|gb\|ABJ54020.1 | 1 |
| K.LVFENLESSVK.N | 1264.6836 | 1264.6783 | 2 | 1 | 3.051 | 0.7554 | 932.1 | 1 18\|20 | gi\|116076462\|gb\|ABJ54182.1 | 1 |
| K.LVFENLESSVK.N | 1264.6825 | 1264.6783 | 2 | 1 | 3.2869 | 0.6191 | 908.3 | 1 18\|20 | gi\|116076462\|gb\|ABJ54182.1 | 1 |
| R.IPDVMYVVDPHK.E | 1412.729 | 1412.7243 | 3 | 1 | 3.9406 | 0.8246 | 797.6 | 1 27\|44 | gi\|116077704\|gb\|ABJ55424.1 | 1 |
| R.IPDVMYVVDPHK.E | 1412.728 | 1412.7243 | 3 | 1 | 3.5271 | 0.8751 | 634.4 | 1 25\|44 | gi\|116077704\|gb\|ABJ55424.1 | 1 |
| R.IPDVMYVVDPHK.E | 1412.7274 | 1412.7243 | 3 | 1 | 3.5143 | 0.8509 | 700 | 1 25\|44 | gi\|116077704\|gb\|ABJ55424.1 | 1 |
| R.IPDVMYVVDPHK.E | 1412.73 | 1412.7243 | 2 | 1 | 3.7659 | 0.7501 | 1355.3 | 1 19\|22 | gi\|116077704\|gb\|ABJ55424.1 | 1 |
| R.VILHIIDMSASEGR.D | 1540.8209 | 1540.8152 | 2 | 1 | 3.4584 | 0.8226 | 1653.1 | 1 21\|26 | gi\|116075897\|gb\|ABJ53617.1 | 1 |
| R.IPDVMYVVDPHK.E | 1412.7298 | 1412.7243 | 2 | 1 | 3.4598 | 0.7834 | 1163.8 | 1 18\|22 | gi\|116077704\|gb\|ABJ55424.1 | 1 |
| R.IPDVMYVVDPHK.E | 1412.7298 | 1412.7243 | 2 | 1 | 3.2347 | 0.7869 | 827.2 | 1 16\|22 | gi\|116077704\|gb\|ABJ55424.1 | 1 |
| R.VILHIIDMSASEGR.D | 1540.8209 | 1540.8152 | 2 | 1 | 3.5791 | 0.8148 | 1292.3 | 1 19\|26 | gi\|116075897\|gb\|ABJ53617.1 | 1 |
| K.TIEELHNLLVSK.E | 1395.788 | 1395.7842 | 2 | 1 | 3.5111 | 0.7949 | 1067.2 | 1 15\|22 | gi\|116077025\|gb\|ABJ54745.1 | 1 |
| K.IPYHDILYIETTGVSHK.L | 1986.0436 | 1986.0331 | 3 | 1 | 4.4833 | 0.7062 | 1901.5 | 1 31\|64 | gi\|116076073\|gb\|ABJ53793.1 | 1 |
| K.GFLEVETPVLHNEAGGAAAR.P | 2038.0477 | 2038.0352 | 3 | 1 | 4.327 | 0.75 | 989.6 | 1 29\|76 | gi\|116077666\|gb\|ABJ55386.1 | 1 |
| K.GFLEVETPVLHNEAGGAAAR.P | 2038.0404 | 2038.0352 | 3 | 1 | 4.096 | 0.749 | 923.3 | 1 29\|76 | gi\|116077666\|gb\|ABJ55386.1 | 1 |
| K.IPYHDILYIETTGVSHK.L | 1986.0368 | 1986.0331 | 3 | 1 | 4.7639 | 0.6975 | 2750.7 | 1 36\|64 | gi\|116076073\|gb\|ABJ53793.1 | 1 |
| K.DAATIFENVHVVK.D | 1442.7667 | 1442.7638 | 2 | 1 | 3.7235 | 0.5605 | 1097.3 | 1 18\|24 | gi\|116077275\|gb\|ABJ54995.1 | 1 |
| K.IPYHDILYIETTGVSHK.L | 1986.0401 | 1986.0331 | 3 | 1 | 4.6715 | 0.5499 | 2406.3 | 1 36\|64 | gi\|116076073\|gb\|ABJ53793.1 | 1 |
| K.DAATIFENVHVVK.D | 1442.7685 | 1442.7638 | 2 | 1 | 3.6483 | 0.7115 | 1053 | 1 18\|24 | gi\|116077275\|gb\|ABJ54995.1 | 1 |
| K.HLFGVDFTNADYAK.I | 1597.7696 | 1597.7645 | 2 | 1 | 3.9742 | 0.8023 | 1210.5 | 1 21\|26 | gi\|116076695\|gb\|ABJ54415.1 | 1 |
| K.HLFGVDFTNADYAK.I | 1597.7697 | 1597.7645 | 2 | 1 | 4.3123 | 0.8377 | 1327.8 | 1 22\|26 | gi\|116076695\|gb\|ABJ54415.1 | 1 |
| K.GFLEVETPVLHNEAGGAAAR.P | 2038.0413 | 2038.0352 | 3 | 1 | 4.1918 | 0.7475 | 1006.2 | 1 29\|76 | gi\|116077666\|gb\|ABJ55386.1 | 1 |
| K.HLFGVDFTNADYAK.I | 1597.7687 | 1597.7645 | 2 | 1 | 4.5073 | 0.8175 | 1368.2 | 1 22\|26 | gi\|116076695\|gb\|ABJ54415.1 | 1 |
| K.GFLEVETPVLHNEAGGAAAR.P | 2038.0406 | 2038.0352 | 3 | 1 | 4.2551 | 0.7962 | 1356.2 | 1 33\|76 | gi\|116077666\|gb\|ABJ55386.1 | 1 |
| R.QMVEFNGLGHSAAIHTADEELTK.E | 2498.1604 | 2498.198 | 3 | 1 | 5.2948 | 0.7886 | 1414.8 | 1 38\|88 | gi\|116076462\|gb\|ABJ54182.1 | 1 |
| R.QMVEFNGLGHSAAIHTADEELTK.E | 2498.159 | 2498.198 | 3 | 1 | 4.7064 | 0.7704 | 1067.4 | 1 32\|88 | gi\|116076462\|gb\|ABJ54182.1 | 1 |

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|---|---|---|---|---|---|---|---|---|---|---|
| K.HLFGVDFTNADYAK.I | 1597.7693 | 1597.7645 | 3 | 1 | 3.7679 | 0.8618 | 1006.6 | 1 26\|52 | gi\|116076695\|gb\|ABJ54415.1 | 1 |
| R.IPDVMYVVDPHK.E | 1412.73 | 1412.7243 | 2 | 1 | 3.1471 | 0.766 | 1016.1 | 1 18\|22 | gi\|116077704\|gb\|ABJ55424.1 | 1 |
| K.HLEADMEDGVLVIR.E | 1596.812 | 1596.805 | 2 | 1 | 2.8328 | 0.7778 | 785.9 | 1 20\|26 | gi\|116076544\|gb\|ABJ54264.1 | 1 |
| R.IPDVMYVVDPHK.E | 1412.727 | 1412.7243 | 2 | 1 | 3.4213 | 0.811 | 1136.1 | 1 18\|22 | gi\|116077704\|gb\|ABJ55424.1 | 1 |
| R.IPDVMYVVDPHK.E | 1412.7282 | 1412.7243 | 2 | 1 | 3.3896 | 0.8337 | 966.3 | 1 17\|22 | gi\|116077704\|gb\|ABJ55424.1 | 1 |
| K.HLEADMEDGVLVIR.E | 1596.81 | 1596.805 | 2 | 1 | 3.403 | 0.7647 | 745.1 | 1 19\|26 | gi\|116076544\|gb\|ABJ54264.1 | 1 |
| K.VPFVEHNIMTSPLTR.K | 1740.9118 | 1740.9101 | 3 | 1 | 3.7406 | 0.6911 | 1466.4 | 1 27\|56 | gi\|116076232\|gb\|ABJ53952.1 | 1 |
| K.VPFVEHNIMTSPLTR.K | 1740.914 | 1740.9101 | 3 | 1 | 4.0095 | 0.609 | 1321.6 | 1 25\|56 | gi\|116076232\|gb\|ABJ53952.1 | 1 |
| K.LDLPSGVNVEIK.L | 1283.7248 | 1283.7205 | 2 | 1 | 2.6414 | 0.3876 | 539.5 | 1 16\|22 | gi\|116077239\|gb\|ABJ54959.1 | 1 |
| K.HLFGVDFTNADYAK.I | 1597.7701 | 1597.7645 | 2 | 1 | 4.3994 | 0.831 | 1181.3 | 1 21\|26 | gi\|116076695\|gb\|ABJ54415.1 | 1 |
| K.YLAEHPEIFDEIDK.Q | 1718.8328 | 1718.8272 | 2 | 1 | 4.4475 | 0.6746 | 1059.5 | 1 19\|26 | gi\|116076851\|gb\|ABJ54571.1 | 1 |
| K.HLFGVDFTNADYAK.I | 1597.7682 | 1597.7645 | 2 | 1 | 4.4476 | 0.9004 | 1329.2 | 1 22\|26 | gi\|116076695\|gb\|ABJ54415.1 | 1 |
| K.YLAEHPEIFDEIDK.Q | 1718.8316 | 1718.8272 | 2 | 1 | 4.9105 | 0.7984 | 1315.4 | 1 21\|26 | gi\|116076851\|gb\|ABJ54571.1 | 1 |
| K.YLAEHPEIFDEIDK.Q | 1718.8322 | 1718.8272 | 2 | 1 | 4.4833 | 0.7994 | 851.5 | 1 18\|26 | gi\|116076851\|gb\|ABJ54571.1 | 1 |
| K.IVLDHAFGQTILDK.K | 1569.869 | 1569.8635 | 2 | 1 | 3.6716 | 0.6892 | 1170.2 | 1 19\|26 | gi\|116077744\|gb\|ABJ55464.1 | 1 |
| K.IVLDHAFGQTILDK.K | 1569.8681 | 1569.8635 | 2 | 1 | 3.9937 | 0.6239 | 1157 | 1 19\|26 | gi\|116077744\|gb\|ABJ55464.1 | 1 |
| K.AAIDFLNHHFANLQTK.E | 1839.9558 | 1839.95 | 3 | 1 | 3.4403 | 0.6473 | 1347.5 | 1 29\|60 | gi\|116077186\|gb\|ABJ54906.1 | 1 |
| K.GNITEYLHFAGENTGAAR.L | 1920.9272 | 1920.9199 | 3 | 1 | 4.5556 | 0.8474 | 1099.9 | 1 30\|68 | gi\|116076357\|gb\|ABJ54077.1 | 1 |
| K.GNITEYLHFAGENTGAAR.L | 1920.9264 | 1920.9199 | 3 | 1 | 3.8979 | 0.7539 | 1327.7 | 1 31\|68 | gi\|116076357\|gb\|ABJ54077.1 | 1 |
| K.GNITEYLHFAGENTGAAR.L | 1920.9251 | 1920.9199 | 2 | 1 | 4.3413 | 0.7861 | 1532.3 | 1 23\|34 | gi\|116076357\|gb\|ABJ54077.1 | 1 |
| K.GNITEYLHFAGENTGAAR.L | 1920.9259 | 1920.9199 | 3 | 1 | 3.8716 | 0.8233 | 1554.3 | 1 34\|68 | gi\|116076357\|gb\|ABJ54077.1 | 1 |
| K.GNITEYLHFAGENTGAAR.L | 1920.922 | 1920.9199 | 2 | 1 | 3.5764 | 0.805 | 730.8 | 1 18\|34 | gi\|116076357\|gb\|ABJ54077.1 | 1 |
| K.GNITEYLHFAGENTGAAR.L | 1920.92 | 1920.9199 | 2 | 1 | 3.9804 | 0.7379 | 749.1 | 1 19\|34 | gi\|116076357\|gb\|ABJ54077.1 | 1 |
| K.GNITEYLHFAGENTGAAR.L | 1920.918 | 1920.9199 | 2 | 1 | 4.1505 | 0.7167 | 674.2 | 1 19\|34 | gi\|116076357\|gb\|ABJ54077.1 | 1 |
| R.ATISMIQSMVEHR.L | 1502.7503 | 1502.7454 | 2 | 1 | 3.5873 | 0.7805 | 1153.9 | 1 16\|24 | gi\|116076371\|gb\|ABJ54091.1 | 1 |
| R.ATISMIQSMVEHR.L | 1502.7492 | 1502.7454 | 2 | 1 | 3.2531 | 0.774 | 1374.4 | 1 18\|24 | gi\|116076371\|gb\|ABJ54091.1 | 1 |
| R.ATISMIQSMVEHR.L | 1502.7501 | 1502.7454 | 2 | 1 | 3.366 | 0.7768 | 1666.7 | 1 19\|24 | gi\|116076371\|gb\|ABJ54091.1 | 1 |
| K.LTIHEIAQVVGAK.N | 1378.809 | 1378.8053 | 2 | 1 | 3.0304 | 0.5833 | 1197.7 | 1 18\|24 | gi\|116076333\|gb\|ABJ54053.1 | 1 |
| K.LTIHEIAQVVGAK.N | 1378.8091 | 1378.8053 | 2 | 1 | 2.814 | 0.5031 | 1035.8 | 1 18\|24 | gi\|116076333\|gb\|ABJ54053.1 | 1 |
| K.GNITEYLHFAGENTGAAR.L | 1920.9258 | 1920.9199 | 3 | 1 | 3.7173 | 0.7135 | 882.2 | 1 28\|68 | gi\|116076357\|gb\|ABJ54077.1 | 1 |
| K.GNITEYLHFAGENTGAAR.L | 1920.9258 | 1920.9199 | 3 | 1 | 3.8775 | 0.7715 | 1230.2 | 1 29\|68 | gi\|116076357\|gb\|ABJ54077.1 | 1 |
| K.GNITEYLHFAGENTGAAR.L | 1920.925 | 1920.9199 | 3 | 1 | 4.2662 | 0.7307 | 1087.8 | 1 31\|68 | gi\|116076357\|gb\|ABJ54077.1 | 1 |
| K.GNITEYLHFAGENTGAAR.L | 1920.9254 | 1920.9199 | 3 | 1 | 3.7197 | 0.8318 | 867.5 | 1 25\|68 | gi\|116076357\|gb\|ABJ54077.1 | 1 |
| K.GNITEYLHFAGENTGAAR.L | 1920.9254 | 1920.9199 | 3 | 1 | 4.1622 | 0.7775 | 979.5 | 1 27\|68 | gi\|116076357\|gb\|ABJ54077.1 | 1 |
| K.ASLAGLLHDYAK.K | 1258.682 | 1258.679 | 2 | 1 | 3.1263 | 0.5852 | 613.1 | 1 15\|22 | gi\|116075945\|gb\|ABJ53665.1 | 1 |
| K.ASLAGLLHDYAK.K | 1258.681 | 1258.679 | 2 | 1 | 3.0076 | 0.5971 | 693.3 | 1 15\|22 | gi\|116075945\|gb\|ABJ53665.1 | 1 |
| K.ASLAGLLHDYAK.K | 1258.682 | 1258.679 | 2 | 1 | 2.638 | 0.6263 | 848.5 | 1 14\|22 | gi\|116075945\|gb\|ABJ53665.1 | 1 |
| R.GEEYHQLTSDHSLVNELLK.A | 2212.0949 | 2212.088 | 3 | 1 | 3.9045 | 0.6607 | 917.5 | 1 27\|72 | gi\|116076508\|gb\|ABJ54228.1 | 1 |
| R.GEEYHQLTSDHSLVNELLK.A | 2212.0949 | 2212.088 | 3 | 1 | 4.3311 | 0.6698 | 850.1 | 1 29\|72 | gi\|116076508\|gb\|ABJ54228.1 | 1 |
| R.HENMIAVLAVDEVK.V | 1567.8199 | 1567.8149 | 3 | 1 | 3.6318 | 0.8321 | 1978.2 | 1 28\|52 | gi\|116076973\|gb\|ABJ54693.1 | 1 |
| R.HENMIAVLAVDEVK.V | 1567.8189 | 1567.8149 | 3 | 1 | 3.8546 | 0.9001 | 1944.4 | 1 30\|52 | gi\|116076973\|gb\|ABJ54693.1 | 1 |
| R.HENMIAVLAVDEVK.V | 1567.8196 | 1567.8149 | 2 | 1 | 5.1943 | 0.8474 | 2568.7 | 1 24\|26 | gi\|116076973\|gb\|ABJ54693.1 | 1 |

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|---|---|---|---|---|---|---|---|---|---|---|
| R.HENMIAVLAVDEVK.V | 1567.8195 | 1567.8149 | 2 | 1 | 5.4708 | 0.8698 | 3012.7 | 1 24\|26 | gi\|116076973\|gb\|ABJ54693.1 | 1 |
| K.VAGPSTPVSITGLNEAPM*AGDHFAVYEDEK.S | 3118.4787 | 3118.4674 | 3 | 1 | 4.1852 | 0.9183 | 492.8 | 1 34\|116 | gi\|116077164\|gb\|ABJ54884.1 | 1 |
| R.HENMIAVLAVDEVK.V | 1567.8209 | 1567.8149 | 2 | 1 | 5.6262 | 0.803 | 2947 | 1 24\|26 | gi\|116076973\|gb\|ABJ54693.1 | 1 |
| K.VAGPSTPVSITGLNEAPM*AGDHFAVYEDEK.S | 3118.4806 | 3118.4674 | 3 | 1 | 4.0084 | 0.8593 | 436.7 | 1 34\|116 | gi\|116077164\|gb\|ABJ54884.1 | 1 |
| K.HYGYTDLHLLVGNDGLR.F | 1942.984 | 1942.977 | 3 | 1 | 3.6653 | 0.7798 | 937.6 | 1 23\|64 | gi\|116077618\|gb\|ABJ55338.1 | 1 |
| K.VAGPSTPVSITGLNEAPM*AGDHFAVYEDEK.S | 3118.4798 | 3118.4674 | 3 | 1 | 4.0031 | 0.9018 | 472.6 | 1 33\|116 | gi\|116077164\|gb\|ABJ54884.1 | 1 |
| R.EEIPHSVAVVVDSMK.R | 1639.8414 | 1639.836 | 2 | 1 | 3.615 | 0.7498 | 452.5 | 1 18\|28 | gi\|116077338\|gb\|ABJ55058.1 | 1 |
| R.GEEYHQLTSDHSLVNELLK.A | 2212.0968 | 2212.088 | 3 | 1 | 4.9227 | 0.696 | 1355.9 | 1 33\|72 | gi\|116076508\|gb\|ABJ54228.1 | 1 |
| R.EEIPHSVAVVVDSMK.R | 1639.8422 | 1639.836 | 2 | 1 | 3.3257 | 0.7974 | 613.8 | 1 20\|28 | gi\|116077338\|gb\|ABJ55058.1 | 1 |
| R.GEEYHQLTSDHSLVNELLK.A | 2212.0946 | 2212.088 | 3 | 1 | 4.3546 | 0.7852 | 913 | 1 27\|72 | gi\|116076508\|gb\|ABJ54228.1 | 1 |
| R.EGYDADFIVLDK.D | 1384.667 | 1384.6631 | 2 | 1 | 3.1428 | 0.7722 | 1247.4 | 1 17\|22 | gi\|116076809\|gb\|ABJ54529.1 | 1 |
| R.EGYDADFIVLDK.D | 1384.668 | 1384.6631 | 2 | 1 | 3.3759 | 0.6459 | 760.8 | 1 15\|22 | gi\|116076809\|gb\|ABJ54529.1 | 1 |
| R.LSTILEEEIPEHLR.S | 1678.9079 | 1678.901 | 2 | 1 | 4.1339 | 0.6983 | 899.9 | 1 18\|26 | gi\|116077571\|gb\|ABJ55291.1 | 1 |
| R.LSTILEEEIPEHLR.S | 1678.9081 | 1678.901 | 2 | 1 | 4.0476 | 0.6626 | 859.1 | 1 18\|26 | gi\|116077571\|gb\|ABJ55291.1 | 1 |
| R.FNAVIEFSHLTK.E | 1405.7514 | 1405.7474 | 2 | 1 | 3.748 | 0.548 | 1592.3 | 1 20\|22 | gi\|116076544\|gb\|ABJ54264.1 | 1 |
| R.FNAVIEFSHLTK.E | 1405.7514 | 1405.7474 | 2 | 1 | 3.8311 | 0.5281 | 1149.6 | 1 18\|22 | gi\|116076544\|gb\|ABJ54264.1 | 1 |
| R.FNAVIEFSHLTK.E | 1405.7525 | 1405.7474 | 2 | 1 | 3.8883 | 0.5469 | 1321.9 | 1 19\|22 | gi\|116076544\|gb\|ABJ54264.1 | 1 |
| R.HENMIAVLAVDEVK.V | 1567.8202 | 1567.8149 | 3 | 1 | 3.6645 | 0.7258 | 1794 | 1 27\|52 | gi\|116076973\|gb\|ABJ54693.1 | 1 |
| R.FNAVIEFSHLTK.E | 1405.7522 | 1405.7474 | 2 | 1 | 3.9942 | 0.581 | 1182 | 1 18\|22 | gi\|116076544\|gb\|ABJ54264.1 | 1 |
| R.HENMIAVLAVDEVK.V | 1567.8195 | 1567.8149 | 3 | 1 | 3.7894 | 0.7754 | 1868.6 | 1 28\|52 | gi\|116076973\|gb\|ABJ54693.1 | 1 |
| R.HENMIAVLAVDEVK.V | 1567.8195 | 1567.8149 | 2 | 1 | 5.5095 | 0.8631 | 2609.1 | 1 24\|26 | gi\|116076973\|gb\|ABJ54693.1 | 1 |
| R.HENMIAVLAVDEVK.V | 1567.8195 | 1567.8149 | 2 | 1 | 5.1848 | 0.8226 | 2698.6 | 1 24\|26 | gi\|116076973\|gb\|ABJ54693.1 | 1 |
| R.HENMIAVLAVDEVK.V | 1567.8185 | 1567.8149 | 2 | 1 | 5.4071 | 0.8751 | 2424 | 1 23\|26 | gi\|116076973\|gb\|ABJ54693.1 | 1 |
| K.TVSEETVDLGHVVDAIK.K | 1811.9438 | 1811.9385 | 2 | 1 | 4.5992 | 0.7705 | 1723.1 | 1 22\|32 | gi\|116077560\|gb\|ABJ55280.1 | 1 |
| R.HENMIAVLAVDEVK.V | 1567.8194 | 1567.8149 | 2 | 1 | 4.9639 | 0.8726 | 2552.5 | 1 24\|26 | gi\|116076973\|gb\|ABJ54693.1 | 1 |
| R.VTIQNLEVVQVVPEK.N | 1694.9749 | 1694.9687 | 2 | 1 | 4.158 | 0.8686 | 1059.8 | 1 19\|28 | gi\|116077301\|gb\|ABJ55021.1 | 1 |
| K.TVSEETVDLGHVVDAIK.K | 1811.9463 | 1811.9385 | 2 | 1 | 4.8705 | 0.7609 | 2492.5 | 1 24\|32 | gi\|116077560\|gb\|ABJ55280.1 | 1 |
| K.TVSEETVDLGHVVDAIK.K | 1811.9459 | 1811.9385 | 2 | 1 | 4.9182 | 0.764 | 2404.1 | 1 24\|32 | gi\|116077560\|gb\|ABJ55280.1 | 1 |
| R.VTIQNLEVVQVVPEK.N | 1694.9754 | 1694.9687 | 2 | 1 | 4.4173 | 0.8264 | 1104.3 | 1 19\|28 | gi\|116077301\|gb\|ABJ55021.1 | 1 |
| R.GEEYHQLTSDHSLVNELLK.A | 2212.0981 | 2212.088 | 3 | 1 | 4.491 | 0.8151 | 970.1 | 1 27\|72 | gi\|116076508\|gb\|ABJ54228.1 | 1 |
| R.VTIQNLEVVQVVPEK.N | 1694.9756 | 1694.9687 | 2 | 1 | 4.2665 | 0.8208 | 1146.6 | 1 19\|28 | gi\|116077301\|gb\|ABJ55021.1 | 1 |
| R.GEEYHQLTSDHSLVNELLK.A | 2212.0981 | 2212.088 | 3 | 1 | 4.602 | 0.769 | 1132.4 | 1 30\|72 | gi\|116076508\|gb\|ABJ54228.1 | 1 |
| R.GEEYHQLTSDHSLVNELLK.A | 2212.0959 | 2212.088 | 3 | 1 | 4.5997 | 0.7188 | 1511.4 | 1 32\|72 | gi\|116076508\|gb\|ABJ54228.1 | 1 |
| R.VTIQNLEVVQVVPEK.N | 1694.9749 | 1694.9687 | 2 | 1 | 4.1144 | 0.8407 | 1189.4 | 1 20\|28 | gi\|116077301\|gb\|ABJ55021.1 | 1 |
| R.GEEYHQLTSDHSLVNELLK.A | 2212.0948 | 2212.088 | 3 | 1 | 4.2609 | 0.7208 | 1465.3 | 1 31\|72 | gi\|116076508\|gb\|ABJ54228.1 | 1 |
| R.NINVTTGLVSTNTTPQLLK.A | 2014.1242 | 2014.1179 | 2 | 1 | 4.5827 | 0.8384 | 1683.4 | 1 24\|36 | gi\|116077673\|gb\|ABJ55393.1 | 1 |
| R.GEEYHQLTSDHSLVNELLK.A | 2212.094 | 2212.088 | 3 | 1 | 4.4972 | 0.7719 | 1045.8 | 1 29\|72 | gi\|116076508\|gb\|ABJ54228.1 | 1 |
| R.GEEYHQLTSDHSLVNELLK.A | 2212.0962 | 2212.088 | 3 | 1 | 3.9904 | 0.6685 | 764.4 | 1 26\|72 | gi\|116076508\|gb\|ABJ54228.1 | 1 |
| K.AIDLVDVTAAHLAAQHPVTDVHAVER.E | 2748.4496 | 2748.4428 | 4 | 1 | 4.6324 | 0.8567 | 1002.4 | 1 49\|150 | gi\|116076544\|gb\|ABJ54264.1 | 1 |
| R.DAAANDAVVLFVGTK.K | 1490.79 | 1490.7849 | 2 | 1 | 5.0867 | 0.7485 | 2838.4 | 1 23\|28 | gi\|116077704\|gb\|ABJ55424.1 | 1 |
| R.DAAANDAVVLFVGTK.K | 1490.7901 | 1490.7849 | 2 | 1 | 4.8222 | 0.7491 | 2631.7 | 1 24\|28 | gi\|116077704\|gb\|ABJ55424.1 | 1 |
| R.DAAANDAVVLFVGTK.K | 1490.7901 | 1490.7849 | 2 | 1 | 4.6603 | 0.7019 | 2731 | 1 23\|28 | gi\|116077704\|gb\|ABJ55424.1 | 1 |

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|---|---|---|---|---|---|---|---|---|---|---|
| K.EVIVESFELDHTIVK.A | 1757.938 | 1757.932 | 2 | 1 | 4.6504 | 0.7358 | 1319.5 | 1 20\|28 | gi\|116076775\|gb\|ABJ54495.1 | 1 |
| K.EVIVESFELDHTIVK.A | 1757.9371 | 1757.932 | 2 | 1 | 4.2383 | 0.7699 | 1322.7 | 1 20\|28 | gi\|116076775\|gb\|ABJ54495.1 | 1 |
| K.EVIVESFELDHTIVK.A | 1757.9405 | 1757.932 | 2 | 1 | 4.7838 | 0.771 | 2083 | 1 22\|28 | gi\|116076775\|gb\|ABJ54495.1 | 1 |
| R.DFSYFGELGR.R | 1190.552 | 1190.5477 | 2 | 1 | 2.4146 | 0.3671 | 818.2 | 1 14\|18 | gi\|116075984\|gb\|ABJ53704.1 | 1 |
| R.FNAVIEFSHLTK.E | 1405.7516 | 1405.7474 | 3 | 1 | 3.4041 | 0.3848 | 1187.4 | 1 23\|44 | gi\|116076544\|gb\|ABJ54264.1 | 1 |
| R.FNAVIEFSHLTK.E | 1405.7521 | 1405.7474 | 2 | 1 | 3.6484 | 0.5004 | 1063 | 1 17\|22 | gi\|116076544\|gb\|ABJ54264.1 | 1 |
| R.FNAVIEFSHLTK.E | 1405.752 | 1405.7474 | 2 | 1 | 3.6842 | 0.5252 | 1130 | 1 18\|22 | gi\|116076544\|gb\|ABJ54264.1 | 1 |
| R.HQGVNQEYPANIVDYMDVSPK.Q | 2404.1345 | 2404.1238 | 3 | 1 | 4.334 | 0.7581 | 1137.8 | 1 33\|80 | gi\|116077011\|gb\|ABJ54731.1 | 1 |
| R.HQGVNQEYPANIVDYMDVSPK.Q | 2404.1312 | 2404.1238 | 3 | 1 | 4.1896 | 0.6717 | 1120.7 | 1 31\|80 | gi\|116077011\|gb\|ABJ54731.1 | 1 |
| R.GEEYHQLTSDHSLVNELLK.A | 2212.0955 | 2212.088 | 3 | 1 | 3.8194 | 0.4874 | 677.3 | 1 26\|72 | gi\|116076508\|gb\|ABJ54228.1 | 1 |
| R.HQGVNQEYPANIVDYMDVSPK.Q | 2404.1325 | 2404.1238 | 3 | 1 | 4.4554 | 0.7533 | 1037.7 | 1 30\|80 | gi\|116077011\|gb\|ABJ54731.1 | 1 |
| R.GEEYHQLTSDHSLVNELLK.A | 2212.0955 | 2212.088 | 3 | 1 | 4.0474 | 0.7077 | 870.7 | 1 28\|72 | gi\|116076508\|gb\|ABJ54228.1 | 1 |
| R.HENMIAVLAVDEVK.V | 1567.8201 | 1567.8149 | 2 | 1 | 4.7584 | 0.8394 | 2224 | 1 22\|26 | gi\|116076973\|gb\|ABJ54693.1 | 1 |
| R.GEEYHQLTSDHSLVNELLK.A | 2212.0942 | 2212.088 | 3 | 1 | 3.6623 | 0.6669 | 609.9 | 1 25\|72 | gi\|116076508\|gb\|ABJ54228.1 | 1 |
| R.GEEYHQLTSDHSLVNELLK.A | 2212.0942 | 2212.088 | 3 | 1 | 4.4212 | 0.7562 | 894 | 1 29\|72 | gi\|116076508\|gb\|ABJ54228.1 | 1 |
| R.HQGVNQEYPANIVDYMDVSPK.Q | 2404.131 | 2404.1238 | 3 | 1 | 4.5109 | 0.7409 | 1626.4 | 1 35\|80 | gi\|116077011\|gb\|ABJ54731.1 | 1 |
| R.HQGVNQEYPANIVDYMDVSPK.Q | 2404.1312 | 2404.1238 | 3 | 1 | 3.7457 | 0.65 | 1115.6 | 1 32\|80 | gi\|116077011\|gb\|ABJ54731.1 | 1 |
| R.GEEYHQLTSDHSLVNELLK.A | 2212.0951 | 2212.088 | 3 | 1 | 3.8878 | 0.733 | 1109 | 1 31\|72 | gi\|116076508\|gb\|ABJ54228.1 | 1 |
| R.TIAQYNEDIWHLN.- | 1616.779 | 1616.7704 | 2 | 1 | 3.3511 | 0.8025 | 1007.6 | 1 18\|24 | gi\|116076534\|gb\|ABJ54254.1 | 1 |
| R.TIAQYNEDIWHLN.- | 1616.7773 | 1616.7704 | 2 | 1 | 3.2203 | 0.7757 | 792.6 | 1 15\|24 | gi\|116076534\|gb\|ABJ54254.1 | 1 |
| K.SGIEDILVVTGK.S | 1230.699 | 1230.694 | 2 | 1 | 3.0757 | 0.54 | 1310.5 | 1 17\|22 | gi\|116076768\|gb\|ABJ54488.1 | 1 |
| K.SGIEDILVVTGK.S | 1230.706 | 1230.694 | 2 | 1 | 2.704 | 0.5464 | 1420.6 | 1 16\|22 | gi\|116076768\|gb\|ABJ54488.1 | 1 |
| R.EWFAHYLEIENQK.I | 1706.8213 | 1706.8173 | 2 | 1 | 4.1449 | 0.6462 | 1129.4 | 1 16\|24 | gi\|116076508\|gb\|ABJ54228.1 | 1 |
| R.EWFAHYLEIENQK.I | 1706.8285 | 1706.8173 | 2 | 1 | 4.7424 | 0.7169 | 801.8 | 1 17\|24 | gi\|116076508\|gb\|ABJ54228.1 | 1 |
| R.EWFAHYLEIENQK.I | 1706.8316 | 1706.8173 | 2 | 1 | 4.6647 | 0.666 | 856.9 | 1 18\|24 | gi\|116076508\|gb\|ABJ54228.1 | 1 |
| R.DVLPDPLYNSQLVTR.L | 1729.9158 | 1729.9119 | 2 | 1 | 2.6034 | 0.5535 | 479.1 | 1 17\|28 | gi\|116077493\|gb\|ABJ55213.1 | 1 |
| R.DVLPDPLYNSQLVTR.L | 1729.9158 | 1729.9119 | 2 | 1 | 3.3287 | 0.7106 | 880.4 | 1 22\|28 | gi\|116077493\|gb\|ABJ55213.1 | 1 |
| R.DVLPDPLYNSQLVTR.L | 1729.9255 | 1729.9119 | 2 | 1 | 3.0476 | 0.6298 | 694.2 | 1 21\|28 | gi\|116077493\|gb\|ABJ55213.1 | 1 |
| K.IGADFLYSVSTLHDR.L | 1693.8618 | 1693.8544 | 3 | 1 | 4.5241 | 0.7861 | 728.1 | 1 26\|56 | gi\|116077328\|gb\|ABJ55048.1 | 1 |
| R.DVLPDPLYNSQLVTR.L | 1729.9195 | 1729.9119 | 2 | 1 | 3.5736 | 0.6664 | 1048.7 | 1 23\|28 | gi\|116077493\|gb\|ABJ55213.1 | 1 |
| K.IGADFLYSVSTLHDR.L | 1693.8559 | 1693.8544 | 3 | 1 | 3.9006 | 0.7024 | 797.3 | 1 27\|56 | gi\|116077328\|gb\|ABJ55048.1 | 1 |
| K.IGADFLYSVSTLHDR.L | 1693.8594 | 1693.8544 | 3 | 1 | 4.1833 | 0.8312 | 1176.4 | 1 29\|56 | gi\|116077328\|gb\|ABJ55048.1 | 1 |
| K.IGADFLYSVSTLHDR.L | 1693.8604 | 1693.8544 | 2 | 1 | 4.1551 | 0.8136 | 1297.3 | 1 20\|28 | gi\|116077328\|gb\|ABJ55048.1 | 1 |
| K.IGADFLYSVSTLHDR.L | 1693.8619 | 1693.8544 | 2 | 1 | 3.8909 | 0.826 | 1162.9 | 1 19\|28 | gi\|116077328\|gb\|ABJ55048.1 | 1 |
| K.IGADFLYSVSTLHDR.L | 1693.8619 | 1693.8544 | 2 | 1 | 4.1322 | 0.8255 | 1018.9 | 1 18\|28 | gi\|116077328\|gb\|ABJ55048.1 | 1 |
| K.IGADFLYSVSTLHDR.L | 1693.861 | 1693.8544 | 2 | 1 | 3.9841 | 0.8243 | 860.6 | 1 17\|28 | gi\|116077328\|gb\|ABJ55048.1 | 1 |
| K.IGADFLYSVSTLHDR.L | 1693.8615 | 1693.8544 | 2 | 1 | 3.8647 | 0.7626 | 1219.4 | 1 19\|28 | gi\|116077328\|gb\|ABJ55048.1 | 1 |
| K.VEELSLLAPLHNPANAAGVR.A | 2071.1334 | 2071.1295 | 3 | 1 | 4.577 | 0.7961 | 1654.1 | 1 37\|76 | gi\|116076433\|gb\|ABJ54153.1 | 1 |
| K.VEELSLLAPLHNPANAAGVR.A | 2071.1318 | 2071.1295 | 3 | 1 | 4.4308 | 0.8922 | 1072.6 | 1 30\|76 | gi\|116076433\|gb\|ABJ54153.1 | 1 |
| K.VEELSLLAPLHNPANAAGVR.A | 2071.1442 | 2071.1295 | 3 | 1 | 4.213 | 0.839 | 1438.6 | 1 34\|76 | gi\|116076433\|gb\|ABJ54153.1 | 1 |
| K.VEELSLLAPLHNPANAAGVR.A | 2071.142 | 2071.1295 | 3 | 1 | 4.057 | 0.8829 | 1768.4 | 1 36\|76 | gi\|116076433\|gb\|ABJ54153.1 | 1 |
| K.FVAVDALSFTAPK.T | 1365.7461 | 1365.7413 | 2 | 1 | 4.2523 | 0.7406 | 3026.1 | 1 22\|24 | gi\|116075942\|gb\|ABJ53662.1 | 1 |

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|---|---|---|---|---|---|---|---|---|---|---|
| K.FVAVDALSFTAPK.T | 1365.7499 | 1365.7413 | 2 | 1 | 4.0515 | 0.7043 | 2638.2 | 1 20\|24 | gi\|116075942\|gb\|ABJ53662.1 | 1 |
| K.IGADFLYSVSTLHDR.L | 1693.8611 | 1693.8544 | 3 | 1 | 3.5405 | 0.7557 | 904.3 | 1 27\|56 | gi\|116077328\|gb\|ABJ55048.1 | 1 |
| K.IGADFLYSVSTLHDR.L | 1693.8611 | 1693.8544 | 3 | 1 | 3.4021 | 0.8194 | 634.6 | 1 24\|56 | gi\|116077328\|gb\|ABJ55048.1 | 1 |
| K.IGADFLYSVSTLHDR.L | 1693.8611 | 1693.8544 | 3 | 1 | 3.5689 | 0.8049 | 647.2 | 1 24\|56 | gi\|116077328\|gb\|ABJ55048.1 | 1 |
| K.IGADFLYSVSTLHDR.L | 1693.8541 | 1693.8544 | 3 | 1 | 4.0214 | 0.714 | 763.4 | 1 27\|56 | gi\|116077328\|gb\|ABJ55048.1 | 1 |
| K.DMEAILSHVEEVK.N | 1499.7438 | 1499.741 | 2 | 1 | 4.1184 | 0.6153 | 1779.5 | 1 19\|24 | gi\|116077752\|gb\|ABJ55472.1 | 1 |
| K.DMEAILSHVEEVK.N | 1499.7465 | 1499.741 | 2 | 1 | 3.8147 | 0.7067 | 1865 | 1 20\|24 | gi\|116077752\|gb\|ABJ55472.1 | 1 |
| K.IGADFLYSVSTLHDR.L | 1693.863 | 1693.8544 | 3 | 1 | 3.832 | 0.8032 | 778.5 | 1 27\|56 | gi\|116077328\|gb\|ABJ55048.1 | 1 |
| R.STVIGDSLSHIFQK.I | 1531.8171 | 1531.8115 | 2 | 1 | 3.6106 | 0.7821 | 1281.8 | 1 18\|26 | gi\|116077115\|gb\|ABJ54835.1 | 1 |
| R.FIETVGTYNPLVAENQVTLK.E | 2236.1937 | 2236.186 | 2 | 1 | 5.5444 | 0.7583 | 1486 | 1 24\|38 | gi\|116076605\|gb\|ABJ54325.1 | 1 |
| R.GIYYEGPYFTETFK.G | 1714.7996 | 1714.7999 | 2 | 1 | 4.4946 | 0.837 | 1150.9 | 1 20\|26 | gi\|116076809\|gb\|ABJ54529.1 | 1 |
| R.FIETVGTYNPLVAENQVTLK.E | 2236.1861 | 2236.186 | 2 | 1 | 4.9796 | 0.7669 | 1938.2 | 1 26\|38 | gi\|116076605\|gb\|ABJ54325.1 | 1 |
| R.GIYYEGPYFTETFK.G | 1714.8072 | 1714.7999 | 2 | 1 | 4.6272 | 0.7952 | 1208.8 | 1 20\|26 | gi\|116076809\|gb\|ABJ54529.1 | 1 |
| R.FIETVGTYNPLVAENQVTLK.E | 2236.1944 | 2236.186 | 2 | 1 | 5.2383 | 0.7856 | 2018.9 | 1 26\|38 | gi\|116076605\|gb\|ABJ54325.1 | 1 |
| R.GIYYEGPYFTETFK.G | 1714.8072 | 1714.7999 | 2 | 1 | 3.5566 | 0.8737 | 1052 | 1 19\|26 | gi\|116076809\|gb\|ABJ54529.1 | 1 |
| R.FIETVGTYNPLVAENQVTLK.E | 2236.1961 | 2236.186 | 2 | 1 | 4.9607 | 0.7853 | 1919.9 | 1 26\|38 | gi\|116076605\|gb\|ABJ54325.1 | 1 |
| R.GIYYEGPYFTETFK.G | 1714.8154 | 1714.7999 | 2 | 1 | 3.9435 | 0.7738 | 1090.4 | 1 19\|26 | gi\|116076809\|gb\|ABJ54529.1 | 1 |
| K.VIVLPAGVELANNDNVVTVK.G | 2064.1871 | 2064.1699 | 2 | 1 | 5.4218 | 0.8509 | 1928.8 | 1 24\|38 | gi\|116077516\|gb\|ABJ55236.1 | 1 |
| R.GIYYEGPYFTETFK.G | 1714.8144 | 1714.7999 | 2 | 1 | 3.3741 | 0.8063 | 971 | 1 18\|26 | gi\|116076809\|gb\|ABJ54529.1 | 1 |
| K.VIVLPAGVELANNDNVVTVK.G | 2064.1854 | 2064.1699 | 2 | 1 | 4.6404 | 0.8751 | 1625.7 | 1 24\|38 | gi\|116077516\|gb\|ABJ55236.1 | 1 |
| K.DYPWQVSYIPVK.I | 1494.768 | 1494.7627 | 2 | 1 | 2.8506 | 0.6926 | 766.6 | 1 14\|22 | gi\|116077548\|gb\|ABJ55268.1 | 1 |
| K.DYPWQVSYIPVK.I | 1494.767 | 1494.7627 | 2 | 1 | 2.9471 | 0.5927 | 920.7 | 1 16\|22 | gi\|116077548\|gb\|ABJ55268.1 | 1 |
| K.DYPWQVSYIPVK.I | 1494.7718 | 1494.7627 | 2 | 1 | 3.2175 | 0.7984 | 947.7 | 1 18\|22 | gi\|116077548\|gb\|ABJ55268.1 | 1 |
| R.GIYYEGPYFTETFK.G | 1714.804 | 1714.7999 | 2 | 1 | 4.2869 | 0.8353 | 1225.2 | 1 20\|26 | gi\|116076809\|gb\|ABJ54529.1 | 1 |
| R.GIYYEGPYFTETFK.G | 1714.804 | 1714.7999 | 2 | 1 | 4.3566 | 0.8601 | 1273.2 | 1 20\|26 | gi\|116076809\|gb\|ABJ54529.1 | 1 |
| R.GIYYEGPYFTETFK.G | 1714.8033 | 1714.7999 | 2 | 1 | 4.0589 | 0.78 | 1118.4 | 1 19\|26 | gi\|116076809\|gb\|ABJ54529.1 | 1 |
| R.GIYYEGPYFTETFK.G | 1714.8023 | 1714.7999 | 2 | 1 | 4.2332 | 0.8512 | 1003.7 | 1 18\|26 | gi\|116076809\|gb\|ABJ54529.1 | 1 |
| K.AVGDALDLSHALAFTSPK.K | 1812.9521 | 1812.949 | 3 | 1 | 4.0385 | 0.7288 | 756.3 | 1 33\|68 | gi\|116076178\|gb\|ABJ53898.1 | 1 |
| K.AVGDALDLSHALAFTSPK.K | 1812.9521 | 1812.949 | 3 | 1 | 3.8758 | 0.7139 | 632.9 | 1 31\|68 | gi\|116076178\|gb\|ABJ53898.1 | 1 |
| K.AVGDALDLSHALAFTSPK.K | 1812.9521 | 1812.949 | 3 | 1 | 4.4526 | 0.7754 | 1019.7 | 1 35\|68 | gi\|116076178\|gb\|ABJ53898.1 | 1 |
| K.AVGDALDLSHALAFTSPK.K | 1812.9521 | 1812.949 | 3 | 1 | 4.4469 | 0.7848 | 472 | 1 30\|68 | gi\|116076178\|gb\|ABJ53898.1 | 1 |
| K.AVGDALDLSHALAFTSPK.K | 1812.9523 | 1812.949 | 2 | 1 | 5.1567 | 0.8671 | 1499.3 | 1 22\|34 | gi\|116076178\|gb\|ABJ53898.1 | 1 |
| K.ALQEAHPDVEIFTAALDER.L | 2125.0596 | 2125.056 | 3 | 1 | 3.8171 | 0.7289 | 821.4 | 1 22\|72 | gi\|116075934\|gb\|ABJ53654.1 | 1 |
| K.AVGDALDLSHALAFTSPK.K | 1812.9512 | 1812.949 | 2 | 1 | 5.707 | 0.8663 | 1751.2 | 1 23\|34 | gi\|116076178\|gb\|ABJ53898.1 | 1 |
| K.AVGDALDLSHALAFTSPK.K | 1812.9512 | 1812.949 | 2 | 1 | 5.4449 | 0.8484 | 1668.3 | 1 22\|34 | gi\|116076178\|gb\|ABJ53898.1 | 1 |
| K.ALQEAHPDVEIFTAALDER.L | 2125.0689 | 2125.056 | 3 | 1 | 3.4025 | 0.7247 | 1280.1 | 1 29\|72 | gi\|116075934\|gb\|ABJ53654.1 | 1 |
| K.ALQEAHPDVEIFTAALDER.L | 2125.0647 | 2125.056 | 3 | 1 | 3.7351 | 0.5815 | 927.6 | 1 24\|72 | gi\|116075934\|gb\|ABJ53654.1 | 1 |
| K.AVGDALDLSHALAFTSPK.K | 1812.9578 | 1812.949 | 2 | 1 | 4.7675 | 0.8515 | 1919.2 | 1 23\|34 | gi\|116076178\|gb\|ABJ53898.1 | 1 |
| K.DYPWQVSYIPVK.I | 1494.7673 | 1494.7627 | 2 | 1 | 3.0355 | 0.5868 | 614.2 | 1 15\|22 | gi\|116077548\|gb\|ABJ55268.1 | 1 |
| K.DYPWQVSYIPVK.I | 1494.7673 | 1494.7627 | 2 | 1 | 3.3852 | 0.6641 | 574.5 | 1 14\|22 | gi\|116077548\|gb\|ABJ55268.1 | 1 |
| K.DYPWQVSYIPVK.I | 1494.7707 | 1494.7627 | 2 | 1 | 3.1209 | 0.7541 | 458.6 | 1 13\|22 | gi\|116077548\|gb\|ABJ55268.1 | 1 |
| K.DYPWQVSYIPVK.I | 1494.7712 | 1494.7627 | 2 | 1 | 2.9773 | 0.6129 | 584.2 | 1 14\|22 | gi\|116077548\|gb\|ABJ55268.1 | 1 |

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|---|---|---|---|---|---|---|---|---|---|---|
| R.GIYYEGPYFTETFK.G | 1714.8062 | 1714.7999 | 2 | 1 | 4.0408 | 0.7279 | 1248.8 | 1 20\|26 | gi\|116076809\|gb\|ABJ54529.1 | 1 |
| K.AVGDALDLSHALAFTSPK.K | 1812.9615 | 1812.949 | 3 | 1 | 3.4981 | 0.8408 | 491.3 | 1 31\|68 | gi\|116076178\|gb\|ABJ53898.1 | 1 |
| R.GIYYEGPYFTETFK.G | 1714.814 | 1714.7999 | 2 | 1 | 4.1773 | 0.7776 | 1419.7 | 1 21\|26 | gi\|116076809\|gb\|ABJ54529.1 | 1 |
| K.AVGDALDLSHALAFTSPK.K | 1812.9558 | 1812.949 | 3 | 1 | 4.151 | 0.7716 | 656 | 1 31\|68 | gi\|116076178\|gb\|ABJ53898.1 | 1 |
| K.AVGDALDLSHALAFTSPK.K | 1812.9605 | 1812.949 | 3 | 1 | 3.991 | 0.7728 | 700.5 | 1 32\|68 | gi\|116076178\|gb\|ABJ53898.1 | 1 |
| R.GIYYEGPYFTETFK.G | 1714.8107 | 1714.7999 | 2 | 1 | 4.3101 | 0.8053 | 1354.3 | 1 21\|26 | gi\|116076809\|gb\|ABJ54529.1 | 1 |
| R.GIYYEGPYFTETFK.G | 1714.8102 | 1714.7999 | 2 | 1 | 3.6905 | 0.8013 | 1063.4 | 1 19\|26 | gi\|116076809\|gb\|ABJ54529.1 | 1 |
| K.AVGDALDLSHALAFTSPK.K | 1812.959 | 1812.949 | 2 | 1 | 4.7149 | 0.8383 | 1522.7 | 1 22\|34 | gi\|116076178\|gb\|ABJ53898.1 | 1 |
| K.AVGDALDLSHALAFTSPK.K | 1812.954 | 1812.949 | 2 | 1 | 5.2324 | 0.8083 | 2086.8 | 1 24\|34 | gi\|116076178\|gb\|ABJ53898.1 | 1 |
| K.AVGDALDLSHALAFTSPK.K | 1812.9611 | 1812.949 | 2 | 1 | 5.576 | 0.7442 | 2290.4 | 1 25\|34 | gi\|116076178\|gb\|ABJ53898.1 | 1 |
| K.AVGDALDLSHALAFTSPK.K | 1812.9577 | 1812.949 | 2 | 1 | 4.7364 | 0.8408 | 1492.9 | 1 20\|34 | gi\|116076178\|gb\|ABJ53898.1 | 1 |
| R.IPDVMYVVDPHK.E | 1412.7286 | 1412.7243 | 3 | 1 | 3.804 | 0.9307 | 574.1 | 1 24\|44 | gi\|116077704\|gb\|ABJ55424.1 | 1 |
| R.GIYYEGPYFTETFK.G | 1714.81 | 1714.7999 | 2 | 1 | 4.0772 | 0.7237 | 1075.3 | 1 19\|26 | gi\|116076809\|gb\|ABJ54529.1 | 1 |
| R.GIYYEGPYFTETFK.G | 1714.81 | 1714.7999 | 2 | 1 | 2.755 | 0.7615 | 831.2 | 1 17\|26 | gi\|116076809\|gb\|ABJ54529.1 | 1 |
| R.GIYYEGPYFTETFK.G | 1714.8093 | 1714.7999 | 2 | 1 | 2.7177 | 0.8575 | 604.9 | 1 14\|26 | gi\|116076809\|gb\|ABJ54529.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9939 | 2010.9814 | 3 | 1 | 3.7016 | 0.6283 | 743.4 | 1 28\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9876 | 2010.9814 | 3 | 1 | 4.97 | 0.7173 | 727.6 | 1 27\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.992 | 2010.9814 | 3 | 1 | 4.4095 | 0.6388 | 1052.4 | 1 29\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.988 | 2010.9814 | 3 | 1 | 4.7772 | 0.7376 | 1713.3 | 1 37\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.988 | 2010.9814 | 3 | 1 | 4.7358 | 0.6364 | 1345.5 | 1 33\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9917 | 2010.9814 | 3 | 1 | 4.0663 | 0.6907 | 1001.4 | 1 30\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9878 | 2010.9814 | 3 | 1 | 4.0093 | 0.6934 | 750 | 1 27\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.986 | 2010.9814 | 3 | 1 | 4.6966 | 0.662 | 1181.6 | 1 32\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.992 | 2010.9814 | 3 | 1 | 4.4222 | 0.6262 | 1062.2 | 1 32\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.982 | 2010.9814 | 3 | 1 | 5.4144 | 0.6844 | 1352.7 | 1 34\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.991 | 2010.9814 | 3 | 1 | 5.2019 | 0.7053 | 1509.9 | 1 35\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.991 | 2010.9814 | 3 | 1 | 4.7258 | 0.7636 | 922.1 | 1 31\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9955 | 2010.9814 | 3 | 1 | 4.2495 | 0.7142 | 797.5 | 1 30\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| R.HENMIAVLAVDEVK.V | 1567.822 | 1567.8149 | 2 | 1 | 3.9214 | 0.7906 | 1466.7 | 1 20\|26 | gi\|116076973\|gb\|ABJ54693.1 | 1 |
| R.HENMIAVLAVDEVK.V | 1567.821 | 1567.8149 | 2 | 1 | 3.8405 | 0.7069 | 1341.7 | 1 20\|26 | gi\|116076973\|gb\|ABJ54693.1 | 1 |
| R.GEEYHQLTSDHSLVNELLK.A | 2212.0981 | 2212.088 | 3 | 1 | 3.4672 | 0.6516 | 330 | 1 22\|72 | gi\|116076508\|gb\|ABJ54228.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.996 | 2010.9814 | 3 | 1 | 4.7424 | 0.7192 | 944.2 | 1 32\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.991 | 2010.9814 | 3 | 1 | 4.9463 | 0.6908 | 1046.9 | 1 33\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9867 | 2010.9814 | 3 | 1 | 4.7996 | 0.7485 | 1144 | 1 32\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9968 | 2010.9814 | 3 | 1 | 4.7237 | 0.6809 | 1072.5 | 1 31\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.985 | 2010.9814 | 3 | 1 | 4.9993 | 0.7793 | 1325.7 | 1 34\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9871 | 2010.9814 | 3 | 1 | 3.9324 | 0.7166 | 733.5 | 1 29\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.997 | 2010.9814 | 3 | 1 | 4.2772 | 0.6509 | 863.9 | 1 30\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9952 | 2010.9814 | 3 | 1 | 5.1109 | 0.7464 | 1594.8 | 1 37\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9887 | 2010.9814 | 3 | 1 | 4.8319 | 0.7909 | 1135.7 | 1 33\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.993 | 2010.9814 | 3 | 1 | 4.4799 | 0.6589 | 1229.1 | 1 33\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9889 | 2010.9814 | 3 | 1 | 4.411 | 0.6903 | 864.1 | 1 29\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |

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|---|---|---|---|---|---|---|---|---|---|---|
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9935 | 2010.9814 | 3 | 1 | 4.5094 | 0.6992 | 1306.7 | 1 34\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9935 | 2010.9814 | 3 | 1 | 5.0273 | 0.7309 | 1273.5 | 1 32\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9911 | 2010.9814 | 3 | 1 | 5.2725 | 0.7442 | 1083.8 | 1 32\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.988 | 2010.9814 | 3 | 1 | 4.9885 | 0.7687 | 1251.9 | 1 34\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9876 | 2010.9814 | 3 | 1 | 5.2422 | 0.7461 | 1111.5 | 1 33\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.99 | 2010.9814 | 3 | 1 | 4.8877 | 0.713 | 1536.6 | 1 35\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9871 | 2010.9814 | 3 | 1 | 5.0368 | 0.6797 | 1405 | 1 36\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.992 | 2010.9814 | 3 | 1 | 4.5506 | 0.7442 | 1978.6 | 1 40\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9935 | 2010.9814 | 3 | 1 | 4.9278 | 0.7372 | 943.4 | 1 32\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9979 | 2010.9814 | 3 | 1 | 5.4345 | 0.7395 | 1092 | 1 31\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9902 | 2010.9814 | 3 | 1 | 5.1372 | 0.6493 | 1438.9 | 1 34\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.999 | 2010.9814 | 3 | 1 | 6.0688 | 0.7601 | 2291.9 | 1 40\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9962 | 2010.9814 | 3 | 1 | 5.0194 | 0.6884 | 1993.7 | 1 38\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9941 | 2010.9814 | 3 | 1 | 4.9142 | 0.6547 | 1503.4 | 1 33\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9915 | 2010.9814 | 3 | 1 | 5.2958 | 0.717 | 1922.2 | 1 38\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9926 | 2010.9814 | 3 | 1 | 5.3571 | 0.702 | 1811.5 | 1 36\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.985 | 2010.9814 | 3 | 1 | 4.9376 | 0.6457 | 1492.3 | 1 34\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9898 | 2010.9814 | 3 | 1 | 4.8821 | 0.7158 | 953.5 | 1 31\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9898 | 2010.9814 | 3 | 1 | 4.924 | 0.7702 | 1189.2 | 1 33\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9898 | 2010.9814 | 3 | 1 | 5.3632 | 0.7706 | 1769.4 | 1 35\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9996 | 2010.9814 | 3 | 1 | 4.9988 | 0.7561 | 1754.3 | 1 36\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9931 | 2010.9814 | 3 | 1 | 5.5141 | 0.7455 | 2103.5 | 1 38\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9931 | 2010.9814 | 3 | 1 | 5.4197 | 0.8048 | 1273.3 | 1 33\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9926 | 2010.9814 | 3 | 1 | 5.1278 | 0.7711 | 2040.1 | 1 37\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2011.0006 | 2010.9814 | 3 | 1 | 4.9276 | 0.7065 | 1418.1 | 1 31\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9917 | 2010.9814 | 3 | 1 | 5.3396 | 0.7413 | 1643.1 | 1 35\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9942 | 2010.9814 | 3 | 1 | 4.3167 | 0.6767 | 1061.5 | 1 31\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.994 | 2010.9814 | 3 | 1 | 5.6551 | 0.76 | 1704.8 | 1 35\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9955 | 2010.9814 | 3 | 1 | 4.9106 | 0.7337 | 1379.3 | 1 31\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9919 | 2010.9814 | 3 | 1 | 5.354 | 0.6799 | 1294.3 | 1 35\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9904 | 2010.9814 | 3 | 1 | 4.6899 | 0.6303 | 1575.3 | 1 35\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9992 | 2010.9814 | 3 | 1 | 5.1716 | 0.7309 | 1838.9 | 1 36\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9917 | 2010.9814 | 3 | 1 | 4.2114 | 0.7256 | 1092.2 | 1 31\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9917 | 2010.9814 | 3 | 1 | 5.0904 | 0.8044 | 1378.2 | 1 33\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9968 | 2010.9814 | 3 | 1 | 4.5722 | 0.6778 | 1228.7 | 1 31\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.989 | 2010.9814 | 3 | 1 | 4.5862 | 0.7339 | 1545.2 | 1 34\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.99 | 2010.9814 | 3 | 1 | 4.6202 | 0.7044 | 1226 | 1 31\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9961 | 2010.9814 | 3 | 1 | 5.7161 | 0.7813 | 1325.3 | 1 34\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9961 | 2010.9814 | 3 | 1 | 5.4128 | 0.8028 | 1687.4 | 1 31\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.997 | 2010.9814 | 3 | 1 | 5.5135 | 0.7471 | 1649.3 | 1 33\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9902 | 2010.9814 | 3 | 1 | 4.3131 | 0.7991 | 1198.1 | 1 31\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9909 | 2010.9814 | 3 | 1 | 5.2476 | 0.7232 | 1938.8 | 1 36\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |

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|---|---|---|---|---|---|---|---|---|---|---|
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9889 | 2010.9814 | 3 | 1 | 5.4042 | 0.653 | 1595.3 | 1 33\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9886 | 2010.9814 | 3 | 1 | 4.8422 | 0.7074 | 2322.9 | 1 38\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9882 | 2010.9814 | 3 | 1 | 5.0192 | 0.7857 | 2010.3 | 1 34\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.99 | 2010.9814 | 3 | 1 | 5.4324 | 0.7002 | 1554 | 1 34\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9919 | 2010.9814 | 3 | 1 | 4.6892 | 0.7661 | 1452.4 | 1 31\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9915 | 2010.9814 | 3 | 1 | 4.6714 | 0.7094 | 1659.2 | 1 34\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9904 | 2010.9814 | 3 | 1 | 4.4876 | 0.7405 | 1213.5 | 1 30\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.992 | 2010.9814 | 3 | 1 | 4.527 | 0.7536 | 2208 | 1 35\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.99 | 2010.9814 | 3 | 1 | 4.8204 | 0.5435 | 1272.1 | 1 33\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.995 | 2010.9814 | 3 | 1 | 4.7645 | 0.7383 | 1740 | 1 33\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.99 | 2010.9814 | 3 | 1 | 4.8634 | 0.6887 | 1519.5 | 1 34\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.988 | 2026.9763 | 3 | 1 | 3.8274 | 0.8307 | 788.9 | 1 28\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.9916 | 2026.9763 | 3 | 1 | 3.9595 | 0.8045 | 643.8 | 1 24\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.989 | 2026.9763 | 3 | 1 | 4.2745 | 0.8127 | 718.1 | 1 29\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.9837 | 2026.9763 | 3 | 1 | 4.8754 | 0.7953 | 777.4 | 1 27\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.9788 | 2026.9763 | 3 | 1 | 3.7237 | 0.6284 | 565.2 | 1 24\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9915 | 2010.9814 | 3 | 1 | 4.347 | 0.6997 | 1106.2 | 1 32\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9922 | 2010.9814 | 3 | 1 | 4.9265 | 0.6746 | 1694.4 | 1 36\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9882 | 2010.9814 | 3 | 1 | 4.4365 | 0.6779 | 1421 | 1 32\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9948 | 2010.9814 | 3 | 1 | 5.4293 | 0.7775 | 1825.6 | 1 35\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9886 | 2010.9814 | 3 | 1 | 5.7693 | 0.8536 | 3440.4 | 1 40\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9948 | 2010.9814 | 3 | 1 | 5.2394 | 0.7817 | 1880.7 | 1 35\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9904 | 2010.9814 | 3 | 1 | 5.131 | 0.7544 | 2498.9 | 1 38\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.9881 | 2026.9763 | 3 | 1 | 3.8238 | 0.7692 | 561.6 | 1 25\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.9845 | 2026.9763 | 3 | 1 | 4.1132 | 0.7574 | 546.7 | 1 24\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9913 | 2010.9814 | 3 | 1 | 5.1601 | 0.8124 | 1878.7 | 1 32\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9867 | 2010.9814 | 3 | 1 | 5.2461 | 0.808 | 2831.2 | 1 39\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9944 | 2010.9814 | 3 | 1 | 4.9134 | 0.7479 | 2721 | 1 37\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.995 | 2010.9814 | 3 | 1 | 4.7993 | 0.8043 | 2613.3 | 1 36\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9871 | 2010.9814 | 3 | 1 | 4.8552 | 0.7785 | 2692.8 | 1 38\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9851 | 2010.9814 | 3 | 1 | 5.3647 | 0.7492 | 2994.2 | 1 39\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9889 | 2010.9814 | 3 | 1 | 5.5262 | 0.7698 | 2952.6 | 1 38\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9873 | 2010.9814 | 3 | 1 | 5.1453 | 0.7484 | 2415.8 | 1 35\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.99 | 2010.9814 | 3 | 1 | 4.6198 | 0.7596 | 1028.4 | 1 36\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.991 | 2010.9814 | 3 | 1 | 4.6711 | 0.7902 | 1106.9 | 1 37\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.984 | 2026.9763 | 3 | 1 | 4.1859 | 0.7967 | 672.7 | 1 26\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.988 | 2010.9814 | 3 | 1 | 4.8867 | 0.7972 | 1313.6 | 1 37\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.991 | 2010.9814 | 3 | 1 | 5.3457 | 0.7597 | 1592.2 | 1 39\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.993 | 2010.9814 | 3 | 1 | 5.3074 | 0.7272 | 1892.5 | 1 39\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9893 | 2010.9814 | 3 | 1 | 4.8331 | 0.7311 | 1429.1 | 1 35\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9902 | 2010.9814 | 3 | 1 | 4.818 | 0.7057 | 2051.1 | 1 38\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9904 | 2010.9814 | 3 | 1 | 5.1194 | 0.7518 | 2161.5 | 1 36\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |

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|---|---|---|---|---|---|---|---|---|---|---|
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9904 | 2010.9814 | 3 | 1 | 5.7865 | 0.7846 | 2858.3 | 1 42\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9897 | 2010.9814 | 3 | 1 | 5.3917 | 0.7918 | 3110.3 | 1 40\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9902 | 2010.9814 | 3 | 1 | 5.1088 | 0.7743 | 2400.4 | 1 38\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9931 | 2010.9814 | 3 | 1 | 4.9434 | 0.7776 | 2594.3 | 1 39\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9875 | 2010.9814 | 3 | 1 | 5.096 | 0.7715 | 2627.8 | 1 40\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.984 | 2026.9763 | 3 | 1 | 3.7157 | 0.7084 | 970.4 | 1 27\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.984 | 2026.9763 | 3 | 1 | 3.8077 | 0.7851 | 702.4 | 1 25\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9898 | 2010.9814 | 3 | 1 | 5.484 | 0.7322 | 2811.9 | 1 39\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9898 | 2010.9814 | 3 | 1 | 5.4552 | 0.7186 | 3378.1 | 1 42\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9917 | 2010.9814 | 3 | 1 | 5.462 | 0.7768 | 3072.1 | 1 39\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9917 | 2010.9814 | 3 | 1 | 5.2659 | 0.7943 | 2534.9 | 1 38\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9889 | 2010.9814 | 3 | 1 | 5.037 | 0.7768 | 2867.1 | 1 41\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9941 | 2010.9814 | 3 | 1 | 5.1331 | 0.777 | 3082.9 | 1 40\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.984 | 2026.9763 | 3 | 1 | 4.4871 | 0.7853 | 1054.7 | 1 30\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.989 | 2026.9763 | 3 | 1 | 3.6346 | 0.7221 | 683.1 | 1 23\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9926 | 2010.9814 | 3 | 1 | 5.9213 | 0.7413 | 3950.5 | 1 45\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9926 | 2010.9814 | 3 | 1 | 6.0789 | 0.7594 | 2887.3 | 1 39\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.99 | 2010.9814 | 3 | 1 | 5.6 | 0.765 | 3584.7 | 1 42\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9904 | 2010.9814 | 3 | 1 | 5.3456 | 0.7781 | 3274 | 1 39\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9922 | 2010.9814 | 3 | 1 | 5.7226 | 0.7775 | 3931.3 | 1 43\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.993 | 2010.9814 | 3 | 1 | 5.9311 | 0.7697 | 3944.4 | 1 43\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9919 | 2010.9814 | 3 | 1 | 5.1793 | 0.7176 | 2981.6 | 1 39\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9884 | 2010.9814 | 3 | 1 | 5.5985 | 0.7654 | 3269.6 | 1 40\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9946 | 2010.9814 | 3 | 1 | 5.7352 | 0.7698 | 4399.1 | 1 45\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.9896 | 2026.9763 | 3 | 1 | 4.4477 | 0.7796 | 1030.9 | 1 28\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.992 | 2010.9814 | 3 | 1 | 5.8614 | 0.8 | 3418 | 1 41\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9924 | 2010.9814 | 3 | 1 | 5.0198 | 0.7636 | 3313.6 | 1 42\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9919 | 2010.9814 | 3 | 1 | 5.3235 | 0.7918 | 2963.6 | 1 38\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9908 | 2010.9814 | 3 | 1 | 5.4823 | 0.7397 | 2549.4 | 1 35\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9919 | 2010.9814 | 3 | 1 | 5.4167 | 0.8012 | 2219.8 | 1 35\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9915 | 2010.9814 | 3 | 1 | 5.2645 | 0.7335 | 2129.3 | 1 35\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9962 | 2010.9814 | 3 | 1 | 5.2997 | 0.7513 | 2578.5 | 1 38\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9911 | 2010.9814 | 3 | 1 | 5.8157 | 0.6902 | 3225.3 | 1 40\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.988 | 2026.9763 | 3 | 1 | 3.9789 | 0.7897 | 1021.5 | 1 29\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.9872 | 2026.9763 | 3 | 1 | 4.0943 | 0.7598 | 695.3 | 1 24\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.9883 | 2026.9763 | 3 | 1 | 4.2819 | 0.763 | 1020.3 | 1 27\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9941 | 2010.9814 | 3 | 1 | 6.3837 | 0.7611 | 3948.5 | 1 43\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9941 | 2010.9814 | 3 | 1 | 6.0483 | 0.8007 | 3239.8 | 1 40\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9941 | 2010.9814 | 3 | 1 | 5.9387 | 0.7297 | 2784.3 | 1 38\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9941 | 2010.9814 | 3 | 1 | 6.2898 | 0.7958 | 2903 | 1 40\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.995 | 2010.9814 | 3 | 1 | 5.8704 | 0.7234 | 3531.2 | 1 42\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9935 | 2010.9814 | 3 | 1 | 6.1339 | 0.7733 | 2958.5 | 1 40\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |

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|---|---|---|---|---|---|---|---|---|---|---|
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9937 | 2010.9814 | 3 | 1 | 5.6968 | 0.7776 | 3183.3 | 1 40\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.9907 | 2026.9763 | 3 | 1 | 4.1057 | 0.7308 | 892.7 | 1 28\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.9896 | 2026.9763 | 3 | 1 | 4.2964 | 0.8123 | 1157.3 | 1 27\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9948 | 2010.9814 | 3 | 1 | 5.8354 | 0.7859 | 3158.4 | 1 40\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9948 | 2010.9814 | 3 | 1 | 5.8582 | 0.7738 | 3496.7 | 1 40\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9961 | 2010.9814 | 3 | 1 | 5.9107 | 0.7448 | 3061.3 | 1 40\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9962 | 2010.9814 | 3 | 1 | 5.9968 | 0.7677 | 3380.1 | 1 40\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9962 | 2010.9814 | 3 | 1 | 5.5693 | 0.7147 | 2579.2 | 1 37\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9926 | 2010.9814 | 3 | 1 | 5.7141 | 0.8064 | 3058.6 | 1 39\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9926 | 2010.9814 | 3 | 1 | 5.9366 | 0.7734 | 3404.9 | 1 41\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9941 | 2010.9814 | 3 | 1 | 5.962 | 0.7767 | 2815.1 | 1 39\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9939 | 2010.9814 | 3 | 1 | 5.7794 | 0.8106 | 4766.3 | 1 45\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9931 | 2010.9814 | 3 | 1 | 6.2494 | 0.7303 | 2542.9 | 1 38\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.997 | 2010.9814 | 3 | 1 | 5.663 | 0.6937 | 3218.8 | 1 40\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.993 | 2010.9814 | 3 | 1 | 5.7013 | 0.7328 | 1894.1 | 1 33\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.993 | 2010.9814 | 3 | 1 | 5.6197 | 0.7014 | 3108.3 | 1 39\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9952 | 2010.9814 | 3 | 1 | 6.3034 | 0.7461 | 4188.8 | 1 41\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9928 | 2010.9814 | 3 | 1 | 5.5443 | 0.7347 | 2160.3 | 1 34\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.9896 | 2026.9763 | 3 | 1 | 3.6653 | 0.7465 | 885.6 | 1 27\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.9911 | 2026.9763 | 3 | 1 | 4.0402 | 0.7886 | 767.6 | 1 27\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9909 | 2010.9814 | 3 | 1 | 5.6572 | 0.7641 | 1733.8 | 1 32\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9909 | 2010.9814 | 3 | 1 | 5.071 | 0.7437 | 2121.6 | 1 35\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9931 | 2010.9814 | 3 | 1 | 5.5558 | 0.7854 | 2769.3 | 1 36\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.9876 | 2026.9763 | 3 | 1 | 3.827 | 0.7951 | 693.5 | 1 23\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.9876 | 2026.9763 | 3 | 1 | 4.638 | 0.8075 | 1079.1 | 1 29\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9897 | 2010.9814 | 3 | 1 | 5.9178 | 0.7774 | 3032.1 | 1 39\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.9907 | 2026.9763 | 3 | 1 | 4.0612 | 0.7788 | 521.9 | 1 24\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.99 | 2010.9814 | 3 | 1 | 4.9049 | 0.752 | 2317.8 | 1 35\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9941 | 2010.9814 | 3 | 1 | 5.5464 | 0.7408 | 2255 | 1 36\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9897 | 2010.9814 | 3 | 1 | 4.9577 | 0.6916 | 2662.3 | 1 35\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.9903 | 2026.9763 | 3 | 1 | 3.6423 | 0.7252 | 945.6 | 1 27\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.9872 | 2026.9763 | 3 | 1 | 3.7529 | 0.8247 | 1003.2 | 1 27\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAM*R.L | 2026.9947 | 2026.9763 | 3 | 1 | 3.8148 | 0.5918 | 833.5 | 1 27\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| K.HGIEGVVVIGGDGSYHGAMR.L | 2010.9928 | 2010.9814 | 3 | 1 | 5.3303 | 0.7242 | 1717.4 | 1 33\|76 | gi\|116076573\|gb\|ABJ54293.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.815 | 1693.8081 | 4 | 1 | 4.7206 | 0.77 | 2437.8 | 1 39\|84 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8138 | 1693.8081 | 3 | 1 | 3.4627 | 0.8537 | 1788.9 | 1 28\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8138 | 1693.8081 | 3 | 1 | 4.0777 | 0.8109 | 1285 | 1 28\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8153 | 1693.8081 | 4 | 1 | 4.5584 | 0.782 | 2152.9 | 1 39\|84 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8153 | 1693.8081 | 4 | 1 | 4.5054 | 0.7533 | 2824.3 | 1 40\|84 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8153 | 1693.8081 | 4 | 1 | 4.6581 | 0.6194 | 2482 | 1 39\|84 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.815 | 1693.8081 | 3 | 1 | 4.1945 | 0.8254 | 1692.3 | 1 31\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8168 | 1693.8081 | 4 | 1 | 4.4165 | 0.7439 | 3091.2 | 1 43\|84 | gi\|116075932\|gb\|ABJ53652.1 | 1 |

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|---|---|---|---|---|---|---|---|---|---|---|
| R.HYAHIDAPGHADYVK.N | 1693.8226 | 1693.8081 | 3 | 1 | 4.0401 | 0.8461 | 1633.2 | 1 27\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8226 | 1693.8081 | 3 | 1 | 3.9524 | 0.8085 | 1577 | 1 29\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8166 | 1693.8081 | 3 | 1 | 4.3397 | 0.8356 | 1766.3 | 1 30\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8169 | 1693.8081 | 3 | 1 | 4.1894 | 0.8758 | 1794.7 | 1 28\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8158 | 1693.8081 | 4 | 1 | 4.6929 | 0.7761 | 2535.7 | 1 40\|84 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8151 | 1693.8081 | 3 | 1 | 3.9975 | 0.7771 | 1647.1 | 1 29\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8162 | 1693.8081 | 4 | 1 | 4.6877 | 0.7451 | 2857.3 | 1 42\|84 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.816 | 1693.8081 | 3 | 1 | 4.0178 | 0.815 | 1820.9 | 1 29\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8147 | 1693.8081 | 3 | 1 | 3.9391 | 0.7946 | 1555 | 1 29\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8129 | 1693.8081 | 3 | 1 | 4.4225 | 0.7829 | 1628.7 | 1 30\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8147 | 1693.8081 | 3 | 1 | 4.448 | 0.778 | 2020.2 | 1 31\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8164 | 1693.8081 | 4 | 1 | 4.867 | 0.7366 | 2821.7 | 1 41\|84 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8164 | 1693.8081 | 4 | 1 | 4.8492 | 0.6864 | 2510.8 | 1 41\|84 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8142 | 1693.8081 | 3 | 1 | 4.5513 | 0.8467 | 2154.3 | 1 30\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8166 | 1693.8081 | 4 | 1 | 4.5147 | 0.6698 | 2582.7 | 1 43\|84 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8166 | 1693.8081 | 4 | 1 | 4.445 | 0.6441 | 2241.1 | 1 38\|84 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.815 | 1693.8081 | 4 | 1 | 4.4281 | 0.7094 | 2341.1 | 1 38\|84 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8153 | 1693.8081 | 3 | 1 | 4.2457 | 0.8562 | 1848.1 | 1 30\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8127 | 1693.8081 | 3 | 1 | 4.818 | 0.8512 | 1620.7 | 1 29\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8113 | 1693.8081 | 3 | 1 | 4.1123 | 0.834 | 1539 | 1 28\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8141 | 1693.8081 | 4 | 1 | 4.7691 | 0.7531 | 3109.4 | 1 42\|84 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8153 | 1693.8081 | 4 | 1 | 4.955 | 0.7512 | 2127.2 | 1 39\|84 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8164 | 1693.8081 | 3 | 1 | 4.3526 | 0.8625 | 1294.5 | 1 28\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8155 | 1693.8081 | 3 | 1 | 3.9672 | 0.8808 | 1349.6 | 1 27\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8168 | 1693.8081 | 3 | 1 | 4.2375 | 0.8608 | 1583.6 | 1 28\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8161 | 1693.8081 | 4 | 1 | 4.7962 | 0.7645 | 4376.3 | 1 47\|84 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8149 | 1693.8081 | 3 | 1 | 4.1234 | 0.8632 | 1694.8 | 1 30\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8149 | 1693.8081 | 3 | 1 | 3.8763 | 0.8743 | 1612.5 | 1 29\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8138 | 1693.8081 | 3 | 1 | 4.2997 | 0.8726 | 1799 | 1 30\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8153 | 1693.8081 | 3 | 1 | 4.6835 | 0.8104 | 1310.4 | 1 28\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8142 | 1693.8081 | 3 | 1 | 4.3073 | 0.771 | 1969.8 | 1 31\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8155 | 1693.8081 | 4 | 1 | 4.6594 | 0.74 | 2095.2 | 1 37\|84 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.815 | 1693.8081 | 4 | 1 | 4.7442 | 0.7475 | 3230.7 | 1 43\|84 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8139 | 1693.8081 | 4 | 1 | 4.8105 | 0.7732 | 2476.7 | 1 39\|84 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8151 | 1693.8081 | 4 | 1 | 4.6006 | 0.7495 | 2036.9 | 1 35\|84 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8157 | 1693.8081 | 3 | 1 | 4.4496 | 0.8539 | 1752.3 | 1 31\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.818 | 1693.8081 | 3 | 1 | 4.1163 | 0.7962 | 1557.9 | 1 29\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.814 | 1693.8081 | 3 | 1 | 3.9801 | 0.8417 | 2411.1 | 1 32\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| K.HVPVYIQEDM*VGHK.L | 1667.8277 | 1667.821 | 3 | 1 | 3.4892 | 0.8645 | 411.6 | 1 23\|52 | gi\|116076688\|gb\|ABJ54408.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.815 | 1693.8081 | 3 | 1 | 4.4012 | 0.841 | 1722.1 | 1 30\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| K.HVPVYIQEDM*VGHK.L | 1667.8249 | 1667.821 | 3 | 1 | 3.5255 | 0.8063 | 428 | 1 22\|52 | gi\|116076688\|gb\|ABJ54408.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8144 | 1693.8081 | 3 | 1 | 4.3899 | 0.7876 | 1878.7 | 1 30\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| R.HYAHIDAPGHADYVK.N | 1693.816 | 1693.8081 | 3 | 1 | 4.285 | 0.8925 | 1052.3 | 1 26\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8162 | 1693.8081 | 3 | 1 | 4.2357 | 0.8993 | 1650.7 | 1 29\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| K.HVPVYIQEDM*VGHK.L | 1667.8277 | 1667.821 | 3 | 1 | 3.5763 | 0.8132 | 741 | 1 27\|52 | gi\|116076688\|gb\|ABJ54408.1 | 1 |
| K.HVPVYIQEDM*VGHK.L | 1667.8266 | 1667.821 | 3 | 1 | 3.766 | 0.9113 | 689.7 | 1 25\|52 | gi\|116076688\|gb\|ABJ54408.1 | 1 |
| K.HVPVYIQEDM*VGHK.L | 1667.8271 | 1667.821 | 3 | 1 | 3.5089 | 0.8077 | 395.5 | 1 22\|52 | gi\|116076688\|gb\|ABJ54408.1 | 1 |
| K.HVPVYIQEDM*VGHK.L | 1667.8275 | 1667.821 | 3 | 1 | 3.4798 | 0.7726 | 430.7 | 1 22\|52 | gi\|116076688\|gb\|ABJ54408.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.812 | 1693.8081 | 3 | 1 | 4.1214 | 0.7789 | 1776.6 | 1 29\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.814 | 1693.8081 | 3 | 1 | 4.4821 | 0.8545 | 1928.5 | 1 31\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8155 | 1693.8081 | 3 | 1 | 3.532 | 0.6802 | 1354.2 | 1 27\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| R.HYAHIDAPGHADYVK.N | 1693.8146 | 1693.8081 | 3 | 1 | 4.0918 | 0.7947 | 1771.3 | 1 29\|56 | gi\|116075932\|gb\|ABJ53652.1 | 1 |
| K.HVPVYIQEDM*VGHK.L | 1667.8266 | 1667.821 | 3 | 1 | 3.5534 | 0.8212 | 434 | 1 21\|52 | gi\|116076688\|gb\|ABJ54408.1 | 1 |