Electronic Supplementary Material (ESI) for Analyst.

Sequences of constructs obtained through synthesis

pEV Sequence (681 bp)

CTTGTTACTTAGCGGCAGTGTGTGCTTGCGTGTGGAGTATAGTTAACTGGTAATACGACTCACTAAAAT
TAATACGACTCACTATAGGGCCACAACGGTTTCCAATAATTTTGTTTAACTTTAAGAAGGAGATATACA
TATGATGATGGGACGTATTTATAGCGGCAACCTGAACGATTACAAAGATGCGGTAGCGCGTCTACAGGA
AGACCATGATGTGACCGTGAAGATGGAGTCATTCAGCTACGAAAACCCAGCGAAGATGTGCAGGTCATG
CGGTGAGGTTCTCAGTGTGTTCACACGCTCCGGGCATCTGGTGGCATCCAGAACCTTCGAGCATAGCGA
CAGCGATGTACAAATCAACGCGCAGACTGCATGGCTCCGTAAGGTTCACAGCGAATTGAAACACTGGAA
GTAACTAGCATAACCCCTTGGGGCCTCTAAACGGGTCTTGAGGGGTTTTTTGTGAATGAATGATAATTA
ATACGACTCACTATAGGGAGACCACAACGGTTTCCAATAATTTTGTTTAACTTTAAGAAGGAGATATAC
ATCGGCCGCGGGCCCCTAGCATAACCCCTTGGGGCCTCTAAACGGGTCTTGAGGGGTTTTTTGAGGAGG
TACACACCATGATGTACTTAATGCCATTACTCATCGTCATTGTAGGATGCCTTGCGCTCC

pALP (2124 bp)

CTTGTTACTTAGCGGCAGTGTGTGCTTGCGTGTGGAGTATAGTTAACTGGTAATACGACTCACTAAAAT
TAATACGACTCACTATAGGGCCACAACGGTTTCCAATAATTTTGTTTAACTTTAAGAAGGAGATATACA
TATGATGATGGGACGTATTTATAGCGGCAACCTGAACGATTACAAAGATGCGGTAGCGCGTCTACAGGA
AGACCATGATGTGACCGTGAAGATGGAGTCATTCAGCTACGAAAACCCAGCGAAGATGTGCAGGTCATG
CGGTGAGGTTCTCAGTGTGTTCACACGCTCCGGGCATCTGGTGGCATCCAGAACCTTCGAGCATAGCGA
CAGCGATGTACAAATCAACGCGCAGACTGCATGGCTCCGTAAGGTTCACAGCGAATTGAAACACTGGAA
GTAACTAGCATAACCCCTTGGGGCCTCTAAACGGGTCTTGAGGGGTTTTTTGTGAATGAATGATAATTA
ATACGACTCACTATAGGGAGACCACAACGGTTTCCAATAATTTTGTTTAACTTTAAGAAGGAGATATAC
ATCGTGAAACAAAGCACTATTGCACTGGCACTCTTACCGTTACTGTTTACCCCTGTGACAAAAGCCCGG
ACACCAGAAATGCCTGTTCTGGAAAACCGGGCTGCTCAGGGCGATATTACTGCACCCGGCGGTGCTCGC
CGTTTAACGGGTGATCAGACTGCCGCTCTGCGTGATTCTCTTAGCGATAAACCTGCAAAAAATATTATT
TTGCTGATTGGCGATGGGATGGGGGACTCGGAAATTACTGCCGCACGTAATTATGCCGAAGGTGCGGGC
GGCTTTTTTAAAGGTATAGATGCCTTACCGCTTACCGGGCAATACACTCACTATGCGCTGAATAAAAAA
ACCGGCAAACCGGACTACGTCACCGACTCGGCTGCATCAGCAACCGCCTGGTCAACCGGTGTCAAAACC
TATAACGGCGCGCTGGGCGTCGATATTCACGAAAAAGATCACCCAACGATTCTGGAAATGGCAAAAGCC
GCAGGTCTGGCGACCGGTAACGTTTCTACCGCAGAGTTGCAGGATGCCACGCCCGCTGCGCTGGTGGCA
CATGTGACCTCGCGCAAATGCTACGGTCCGAGCGCGACCAGTGAAAAATGTCCGGGTAACGCTCTGGAA
AAAGGCGGAAAAGGATCGATTACCGAACAGCTGCTTAACGCTCGTGCCGACGTTACGCTTGGCGGCGGC
GCAAAAACCTTTGCTGAAACGGCAACCGCTGGTGAATGGCAGGGAAAAACGCTGCGTGAACAGGCACAG
GCGCGTGGTTATCAGTTGGTGAGCGATGCTGCCTCACTGAATTCGGTGACGGAAGCGAATCAGCAAAAA
CCCCTGCTTGGCCTGTTTGCTGACGGCAATATGCCAGTGCGCTGGCTAGGACCGAAAGCAACGTACCAT
GGCAATATCGATAAGCCCGCAGTCACCTGTACGCCAAATCCGCAACGTAATGACAGTGTACCAACCCTG
GCGCAGATGACCGACAAAGCCATTGAATTGTTGAGTAAAAATGAGAAAGGCTTTTTCCTGCAAGTTGAA
GGTGCGTCAATCGATAAACAGGATCATGCTGCGAATCCTTGTGGGCAAATTGGCGAGACGGTCGATCTC
GATGAAGCCGTACAACGGGCGCTGGAATTCGCTAAAAAGGAGGGTAACACGCTGGTCATAGTCACCGCT
GATCACGCCCACGCCAGCCAGATTGTTGCGCCGGATACCAAAGCTCCGGGCCTCACCCAGGCGCTAAAT
ACCAAAGATGGCGCAGTGATGGTGATGAGTTACGGGAACTCCGAAGAGGATTCACAAGAACATACCGGC
AGTCAGTTGCGTATTGCGGCGTATGGCCCGCATGCCGCCAATGTTGTTGGACTGACCGACCAGACCGAT
CTCTTCTACACCATGAAAGCCGCTCTGGGGCTGAAAGGTAGTGGACACCATCACCATCACCATTAAGGC
CGCGGGCCCCTAGCATAACCCCTTGGGGCCTCTAAACGGGTCTTGAGGGGTTTTTTGAGGAGGTACACA
CCATGATGTACTTAATGCCATTACTCATCGTCATTGTAGGATGCCTTGCGCTCC

pALP* (ALP D153 D330N) (2124 bp)

CTTGTTACTTAGCGGCAGTGTGTGCTTGCGTGTGGAGTATAGTTAACTGGTAATACGACTCACTAAAAT
TAATACGACTCACTATAGGGCCACAACGGTTTCCAATAATTTTGTTTAACTTTAAGAAGGAGATATACA
TATGATGATGGGACGTATTTATAGCGGCAACCTGAACGATTACAAAGATGCGGTAGCGCGTCTACAGGA
AGACCATGATGTGACCGTGAAGATGGAGTCATTCAGCTACGAAAACCCAGCGAAGATGTGCAGGTCATG
CGGTGAGGTTCTCAGTGTGTTCACACGCTCCGGGCATCTGGTGGCATCCAGAACCTTCGAGCATAGCGA
CAGCGATGTACAAATCAACGCGCAGACTGCATGGCTCCGTAAGGTTCACAGCGAATTGAAACACTGGAA
GTAACTAGCATAACCCCTTGGGGCCTCTAAACGGGTCTTGAGGGGTTTTTTGTGAATGAATGATAATTA
ATACGACTCACTATAGGGAGACCACAACGGTTTCCAATAATTTTGTTTAACTTTAAGAAGGAGATATAC
ATCGTGAAACAAAGCACTATTGCACTGGCACTCTTACCGTTACTGTTTACCCCTGTGACAAAAGCCCGG
ACACCAGAAATGCCTGTTCTGGAAAACCGGGCTGCTCAGGGCGATATTACTGCACCCGGCGGTGCTCGC
CGTTTAACGGGTGATCAGACTGCCGCTCTGCGTGATTCTCTTAGCGATAAACCTGCAAAAAATATTATT
TTGCTGATTGGCGATGGGATGGGGGACTCGGAAATTACTGCCGCACGTAATTATGCCGAAGGTGCGGGC
GGCTTTTTTAAAGGTATAGATGCCTTACCGCTTACCGGGCAATACACTCACTATGCGCTGAATAAAAAA
ACCGGCAAACCGGACTACGTCACCGACTCGGCTGCATCAGCAACCGCCTGGTCAACCGGTGTCAAAACC
TATAACGGCGCGCTGGGCGTCGATATTCACGAAAAAGATCACCCAACGATTCTGGAAATGGCAAAAGCC
GCAGGTCTGGCGACCGGTAACGTTTCTACCGCAGAGTTGCAGGGTGCCACGCCCGCTGCGCTGGTGGCA
CATGTGACCTCGCGCAAATGCTACGGTCCGAGCGCGACCAGTGAAAAATGTCCGGGTAACGCTCTGGAA
AAAGGCGGAAAAGGATCGATTACCGAACAGCTGCTTAACGCTCGTGCCGACGTTACGCTTGGCGGCGGC
GCAAAAACCTTTGCTGAAACGGCAACCGCTGGTGAATGGCAGGGAAAAACGCTGCGTGAACAGGCACAG
GCGCGTGGTTATCAGTTGGTGAGCGATGCTGCCTCACTGAATTCGGTGACGGAAGCGAATCAGCAAAAA
CCCCTGCTTGGCCTGTTTGCTGACGGCAATATGCCAGTGCGCTGGCTAGGACCGAAAGCAACGTACCAT
GGCAATATCGATAAGCCCGCAGTCACCTGTACGCCAAATCCGCAACGTAATGACAGTGTACCAACCCTG
GCGCAGATGACCGACAAAGCCATTGAATTGTTGAGTAAAAATGAGAAAGGCTTTTTCCTGCAAGTTGAA
GGTGCGTCAATCGATAAACAGAATCATGCTGCGAATCCTTGTGGGCAAATTGGCGAGACGGTCGATCTC
GATGAAGCCGTACAACGGGCGCTGGAATTCGCTAAAAAGGAGGGTAACACGCTGGTCATAGTCACCGCT
GATCACGCCCACGCCAGCCAGATTGTTGCGCCGGATACCAAAGCTCCGGGCCTCACCCAGGCGCTAAAT
ACCAAAGATGGCGCAGTGATGGTGATGAGTTACGGGAACTCCGAAGAGGATTCACAAGAACATACCGGC
AGTCAGTTGCGTATTGCGGCGTATGGCCCGCATGCCGCCAATGTTGTTGGACTGACCGACCAGACCGAT
CTCTTCTACACCATGAAAGCCGCTCTGGGGCTGAAAGGTAGTGGACACCATCACCATCACCATTAAGGC
CGCGGGCCCCTAGCATAACCCCTTGGGGCCTCTAAACGGGTCTTGAGGGGTTTTTTGAGGAGGTACACA
CCATGATGTACTTAATGCCATTACTCATCGTCATTGTAGGATGCCTTGCGCTCC