

Table S4. Cross-talks between biological pathways mediated by marketing centrality motifs.

Motif	Cross-talk type ^a	Pathway cross-talks mediated by motifs
m848	C	hsa04150:mTOR signaling pathway hsa05221:Acute myeloid leukemia hsa04012:ErbB signaling pathway hsa04666:Fc gamma R-mediated phagocytosis hsa04910:Insulin signaling pathway
		hsa04310:Wnt signaling pathway hsa04114:Oocyte meiosis
m227 6	A	hsa05215:Prostate cancer
	B	hsa04916:Melanogenesis hsa05215:Prostate cancer
		hsa04630:Jak-STAT signaling pathway hsa04530:Tight junction hsa05222:Small cell lung cancer hsa04920:Adipocytokine signaling pathway hsa04210:Apoptosis hsa05215:Prostate cancer hsa04150:mTOR signaling pathway hsa05213:Endometrial cancer hsa05223:Non-small cell lung cancer hsa05221:Acute myeloid leukemia hsa05214:Glioma hsa05211:Renal cell carcinoma hsa05218:Melanoma hsa05212:Pancreatic cancer hsa04662:B cell receptor signaling pathway hsa05220:Chronic myeloid leukemia hsa04370:VEGF signaling pathway hsa04664:Fc epsilon RI signaling pathway hsa05210:Colorectal cancer hsa04914:Progesterone-mediated oocyte maturation hsa04012:ErbB signaling pathway hsa04666:Fc gamma R-mediated phagocytosis hsa04620:Toll-like receptor signaling pathway hsa04660:T cell receptor signaling pathway hsa04722:Neurotrophin signaling pathway

		hsa04910:Insulin signaling pathway hsa04062:Chemokine signaling pathway hsa04510:Focal adhesion hsa04010:MAPK signaling pathway hsa05200:Pathways in cancer	
		hsa04150:mTOR signaling pathway hsa05213:Endometrial cancer hsa05223:Non-small cell lung cancer hsa05221:Acute myeloid leukemia hsa05214:Glioma hsa05211:Renal cell carcinoma hsa05218:Melanoma hsa05212:Pancreatic cancer hsa04662:B cell receptor signaling pathway hsa05220:Chronic myeloid leukemia hsa04370:VEGF signaling pathway hsa04664:Fc epsilon RI signaling pathway hsa05210:Colorectal cancer hsa04914:Progesterone-mediated oocyte maturation hsa04012:ErbB signaling pathway hsa04666:Fc gamma R-mediated phagocytosis hsa04620:Toll-like receptor signaling pathway hsa04660:T cell receptor signaling pathway hsa04722:Neurotrophin signaling pathway hsa04910:Insulin signaling pathway hsa04062:Chemokine signaling pathway hsa04510:Focal adhesion hsa04010:MAPK signaling pathway hsa05200:Pathways in cancer hsa05215:Prostate cancer	hsa04612:Antigen processing and presentation hsa05016:Huntington's disease hsa05215:Prostate cancer hsa04916:Melanogenesis
m255 4	B	hsa04150:mTOR signaling pathway hsa05213:Endometrial cancer hsa05223:Non-small cell lung cancer	Other ^b

		hsa05221:Acute myeloid leukemia hsa05214:Glioma hsa05211:Renal cell carcinoma hsa05218:Melanoma hsa05212:Pancreatic cancer hsa04370:VEGF signaling pathway hsa05220:Chronic myeloid leukemia hsa04662:B cell receptor signaling pathway hsa04664:Fc epsilon RI signaling pathway hsa05222:Small cell lung cancer hsa05210:Colorectal cancer hsa04914:Progesterone-mediated oocyte maturation hsa04012:ErbB signaling pathway hsa04210:Apoptosis hsa05215:Prostate cancer hsa04666:Fc gamma R-mediated phagocytosis hsa04620:Toll-like receptor signaling pathway hsa04660:T cell receptor signaling pathway hsa04722:Neurotrophin signaling pathway hsa04910:Insulin signaling pathway hsa04630:Jak-STAT signaling pathway hsa04062:Chemokine signaling pathway hsa04510:Focal adhesion hsa05200:Pathways in cancer	
	A	hsa04722:Neurotrophin signaling pathway hsa04910:Insulin signaling pathway	
m255 5	B	hsa04150:mTOR signaling pathway hsa05218:Melanoma hsa05212:Pancreatic cancer hsa04370:VEGF signaling pathway hsa05222:Small cell lung cancer hsa04914:Progesterone-mediated oocyte maturation hsa04210:Apoptosis hsa04666:Fc gamma R-mediated phagocytosis hsa04620:Toll-like receptor signaling pathway	hsa04722:Neurotrophin signaling pathway hsa04910:Insulin signaling pathway

		hsa05213:Endometrial cancer	
		hsa05223:Non-small cell lung cancer	
		hsa05221:Acute myeloid leukemia	
		hsa05214:Glioma	
		hsa05211:Renal cell carcinoma	
		hsa04662:B cell receptor signaling pathway	
		hsa05220:Chronic myeloid leukemia	
		hsa04664:Fc epsilon RI signaling pathway	
		hsa05210:Colorectal cancer	
		hsa04012:ErbB signaling pathway	
		hsa05215:Prostate cancer	
		hsa04660:T cell receptor signaling pathway	
		hsa04630:Jak-STAT signaling pathway	
		hsa04062:Chemokine signaling pathway	
		hsa04510:Focal adhesion	
		hsa05200:Pathways in cancer	
		hsa04722:Neurotrophin signaling pathway	
		hsa04910:Insulin signaling pathway	
		hsa05213:Endometrial cancer	
		hsa04150:mTOR signaling pathway	
		hsa05223:Non-small cell lung cancer	
		hsa05221:Acute myeloid leukemia	
		hsa05214:Glioma	
		hsa05211:Renal cell carcinoma	
		hsa05218:Melanoma	
m255	B	hsa05212:Pancreatic cancer	Other
6		hsa04370:VEGF signaling pathway	
		hsa04662:B cell receptor signaling pathway	
		hsa05220:Chronic myeloid leukemia	
		hsa04664:Fc epsilon RI signaling pathway	
		hsa05210:Colorectal cancer	
		hsa05222:Small cell lung cancer	
		hsa04914:Progesterone-mediated oocyte maturation	
		hsa04210:Apoptosis	

		hsa04012:ErbB signaling pathway	
		hsa05215:Prostate cancer	
		hsa04666:Fc gamma R-mediated phagocytosis	
		hsa04620:Toll-like receptor signaling pathway	
		hsa04660:T cell receptor signaling pathway	
		hsa04722:Neurotrophin signaling pathway	
		hsa04910:Insulin signaling pathway	
		hsa04630:Jak-STAT signaling pathway	
		hsa04062:Chemokine signaling pathway	
		hsa04510:Focal adhesion	
		hsa05200:Pathways in cancer	
		hsa04150:mTOR signaling pathway	
		hsa05213:Endometrial cancer	
		hsa05223:Non-small cell lung cancer	
		hsa05221:Acute myeloid leukemia	
		hsa05214:Glioma	
		hsa05211:Renal cell carcinoma	
		hsa05218:Melanoma	
		hsa05212:Pancreatic cancer	
		hsa04662:B cell receptor signaling pathway	
		hsa05220:Chronic myeloid leukemia	hsa04350:TGF-beta signaling pathway
		hsa04370:VEGF signaling pathway	hsa04310:Wnt signaling pathway
m255		hsa04664:Fc epsilon RI signaling pathway	hsa04730:Long-term depression
7	B	hsa05222:Small cell lung cancer	hsa04114:Oocyte meiosis
		hsa05210:Colorectal cancer	hsa04530:Tight junction
		hsa04914:Progesterone-mediated oocyte maturation	
		hsa04012:ErbB signaling pathway	
		hsa04210:Apoptosis	
		hsa05215:Prostate cancer	
		hsa04666:Fc gamma R-mediated phagocytosis	
		hsa04620:Toll-like receptor signaling pathway	
		hsa04660:T cell receptor signaling pathway	
		hsa04722:Neurotrophin signaling pathway	
		hsa04910:Insulin signaling	

	pathway	
	hsa04630:Jak-STAT signaling pathway	
	hsa04062:Chemokine signaling pathway	
	hsa04510:Focal adhesion	
	hsa05200:Pathways in cancer	
		hsa04150:mTOR signaling pathway
		hsa05213:Endometrial cancer
		hsa05223:Non-small cell lung cancer
		hsa05221:Acute myeloid leukemia
		hsa05214:Glioma
		hsa05211:Renal cell carcinoma
		hsa05218:Melanoma
		hsa05212:Pancreatic cancer
		hsa04662:B cell receptor signaling pathway
		hsa05220:Chronic myeloid leukemia
		hsa04370:VEGF signaling pathway
		hsa04664:Fc epsilon RI signaling pathway
		hsa05222:Small cell lung cancer
		hsa05210:Colorectal cancer
		hsa04914:Progesterone-mediated oocyte maturation
B	hsa04530:Tight junction	hsa04012:ErbB signaling pathway
		hsa04210:Apoptosis
		hsa05215:Prostate cancer
		hsa04666:Fc gamma R-mediated phagocytosis
		hsa04620:Toll-like receptor signaling pathway
		hsa04660:T cell receptor signaling pathway
		hsa04722:Neurotrophin signaling pathway
		hsa04910:Insulin signaling pathway
		hsa04630:Jak-STAT signaling pathway
		hsa04062:Chemokine signaling pathway
		hsa04510:Focal adhesion
		hsa05200:Pathways in cancer
		hsa04960:Aldosterone-regulated sodium reabsorption
		hsa04930:Type II diabetes mellitus
		hsa04070:Phosphatidylinositol signaling system

		hsa04670:Leukocyte transendothelial migration hsa04650:Natural killer cell mediated cytotoxicity hsa04810:Regulation of actin cytoskeleton
		hsa05213:Endometrial cancer hsa04150:mTOR signaling pathway hsa05223:Non-small cell lung cancer hsa05221:Acute myeloid leukemia hsa05214:Glioma hsa05211:Renal cell carcinoma hsa05218:Melanoma hsa05212:Pancreatic cancer hsa04662:B cell receptor signaling pathway hsa04370:VEGF signaling pathway hsa05220:Chronic myeloid leukemia hsa04664:Fc epsilon RI signaling pathway hsa05222:Small cell lung cancer hsa05210:Colorectal cancer hsa04914:Progesterone-mediated oocyte maturation hsa04012:ErbB signaling pathway hsa04210:Apoptosis hsa05215:Prostate cancer hsa04666:Fc gamma R-mediated phagocytosis hsa04620:Toll-like receptor signaling pathway hsa04660:T cell receptor signaling pathway hsa04722:Neurotrophin signaling pathway hsa04910:Insulin signaling pathway hsa04630:Jak-STAT signaling pathway hsa04062:Chemokine signaling pathway hsa04510:Focal adhesion hsa05200:Pathways in cancer
m255 8	B	hsa00562:Inositol phosphate metabolism hsa04070:Phosphatidylinositol signaling system
	C	hsa04010:MAPK signaling pathway hsa04530:Tight junction hsa04920:Adipocytokine signaling pathway

		hsa05213:Endometrial cancer hsa04150:mTOR signaling pathway hsa05223:Non-small cell lung cancer hsa05221:Acute myeloid leukemia hsa05214:Glioma hsa05211:Renal cell carcinoma hsa05218:Melanoma hsa05212:Pancreatic cancer hsa04662:B cell receptor signaling pathway hsa04370:VEGF signaling pathway hsa05220:Chronic myeloid leukemia hsa04664:Fc epsilon RI signaling pathway hsa05222:Small cell lung cancer hsa05210:Colorectal cancer hsa04914:Progesterone-mediated oocyte maturation hsa04012:ErbB signaling pathway hsa04210:Apoptosis hsa05215:Prostate cancer hsa04666:Fc gamma R-mediated phagocytosis hsa04620:Toll-like receptor signaling pathway hsa04660:T cell receptor signaling pathway hsa04722:Neurotrophin signaling pathway hsa04910:Insulin signaling pathway hsa04630:Jak-STAT signaling pathway hsa04062:Chemokine signaling pathway hsa04510:Focal adhesion hsa05200:Pathways in cancer
	A	hsa04062:Chemokine signaling pathway
m255 9	B	hsa05213:Endometrial cancer hsa04150:mTOR signaling pathway hsa05223:Non-small cell lung cancer hsa05221:Acute myeloid leukemia hsa05214:Glioma hsa05211:Renal cell carcinoma
		hsa04062:Chemokine signaling pathway hsa04530:Tight junction

hsa05218:Melanoma
hsa05212:Pancreatic cancer
hsa04370:VEGF signaling pathway
hsa04662:B cell receptor signaling pathway
hsa05220:Chronic myeloid leukemia
hsa04664:Fc epsilon RI signaling pathway
hsa05210:Colorectal cancer
hsa05222:Small cell lung cancer
hsa04914:Progesterone-mediated oocyte maturation
hsa04012:ErbB signaling pathway
hsa04210:Apoptosis
hsa05215:Prostate cancer
hsa04666:Fc gamma R-mediated phagocytosis
hsa04620:Toll-like receptor signaling pathway
hsa04630:Jak-STAT signaling pathway
hsa04660:T cell receptor signaling pathway
hsa04722:Neurotrophin signaling pathway
hsa04510:Focal adhesion
hsa05200:Pathways in cancer
hsa04910:Insulin signaling pathway
hsa04062:Chemokine signaling pathway

B

hsa04530:Tight junction
hsa04062:Chemokine signaling pathway

hsa05213:Endometrial cancer
hsa04150:mTOR signaling pathway
hsa05223:Non-small cell lung cancer
hsa05221:Acute myeloid leukemia
hsa05214:Glioma
hsa05211:Renal cell carcinoma
hsa05218:Melanoma
hsa05212:Pancreatic cancer
hsa04370:VEGF signaling pathway
hsa04662:B cell receptor signaling pathway
hsa05220:Chronic myeloid leukemia
hsa04664:Fc epsilon RI signaling pathway
hsa05210:Colorectal cancer
hsa05222:Small cell lung cancer

		<p>hsa04914:Progesterone-mediated oocyte maturation hsa04012:ErbB signaling pathway hsa04210:Apoptosis hsa05215:Prostate cancer hsa04666:Fc gamma R-mediated phagocytosis hsa04620:Toll-like receptor signaling pathway hsa04630:Jak-STAT signaling pathway hsa04660:T cell receptor signaling pathway hsa04722:Neurotrophin signaling pathway hsa04510:Focal adhesion hsa05200:Pathways in cancer hsa04670:Leukocyte transendothelial migration hsa04810:Regulation of actin cytoskeleton hsa04960:Aldosterone-regulated sodium reabsorption hsa04070:Phosphatidylinositol signaling system hsa04650:Natural killer cell mediated cytotoxicity hsa04910:Insulin signaling pathway hsa04062:Chemokine signaling pathway hsa04930:Type II diabetes mellitus</p>	
m256 0	B	<p>hsa05221:Acute myeloid leukemia hsa05214:Glioma hsa05211:Renal cell carcinoma hsa05218:Melanoma hsa05212:Pancreatic cancer hsa04662:B cell receptor signaling pathway hsa05220:Chronic myeloid leukemia hsa04370:VEGF signaling pathway hsa04664:Fc epsilon RI signaling pathway hsa05210:Colorectal cancer hsa05222:Small cell lung cancer hsa04914:Progesterone-mediated oocyte maturation hsa04210:Apoptosis hsa04012:ErbB signaling pathway hsa04666:Fc gamma</p>	Other

		R-mediated phagocytosis hsa04620:Toll-like receptor signaling pathway hsa04660:T cell receptor signaling pathway hsa04722:Neurotrophin signaling pathway hsa04630:Jak-STAT signaling pathway hsa04062:Chemokine signaling pathway hsa05200:Pathways in cancer hsa04150:mTOR signaling pathway hsa05213:Endometrial cancer hsa05223:Non-small cell lung cancer hsa05215:Prostate cancer hsa04910:Insulin signaling pathway hsa04510:Focal adhesion	
	A	hsa05213:Endometrial cancer hsa04510:Focal adhesion	
		hsa04150:mTOR signaling pathway hsa05223:Non-small cell lung cancer hsa05221:Acute myeloid leukemia hsa05214:Glioma hsa05211:Renal cell carcinoma hsa05218:Melanoma hsa05212:Pancreatic cancer hsa05220:Chronic myeloid leukemia hsa04662:B cell receptor signaling pathway hsa04370:VEGF signaling pathway hsa04664:Fc epsilon RI signaling pathway hsa05222:Small cell lung cancer hsa05210:Colorectal cancer hsa04914:Progesterone-medi ated oocyte maturation hsa04012:ErbB signaling pathway hsa04210:Apoptosis hsa05215:Prostate cancer hsa04666:Fc gamma R-mediated phagocytosis hsa04620:Toll-like receptor signaling pathway hsa04660:T cell receptor	hsa03320:PPAR signaling pathway hsa05213:Endometrial cancer hsa04510:Focal adhesion
m256 1	B		

		signaling pathway hsa04722:Neurotrophin signaling pathway hsa04910:Insulin signaling pathway hsa04630:Jak-STAT signaling pathway hsa04062:Chemokine signaling pathway hsa05200:Pathways in cancer hsa05213:Endometrial cancer hsa04510:Focal adhesion	
		hsa04150:mTOR signaling pathway hsa05213:Endometrial cancer hsa05223:Non-small cell lung cancer hsa05221:Acute myeloid leukemia hsa05214:Glioma hsa05211:Renal cell carcinoma hsa05218:Melanoma hsa05212:Pancreatic cancer hsa04662:B cell receptor signaling pathway hsa04370:VEGF signaling pathway hsa05220:Chronic myeloid leukemia hsa04664:Fc epsilon RI signaling pathway hsa05210:Colorectal cancer hsa05222:Small cell lung cancer hsa04914:Progesterone-medi ated oocyte maturation hsa04012:ErbB signaling pathway hsa04210:Apoptosis hsa05215:Prostate cancer hsa04666:Fc gamma R-mediated phagocytosis hsa04620:Toll-like receptor signaling pathway hsa04660:T cell receptor signaling pathway hsa04722:Neurotrophin signaling pathway hsa04910:Insulin signaling pathway hsa04630:Jak-STAT signaling pathway hsa04062:Chemokine signaling pathway hsa04510:Focal adhesion	
m256 2	B		hsa00970:Aminoacyl-tRNA biosynthesis

		hsa05200:Pathways in cancer	
		hsa04012:ErbB signaling pathway	
		hsa04150:mTOR signaling pathway	
		hsa05213:Endometrial cancer	
		hsa05223:Non-small cell lung cancer	
		hsa05221:Acute myeloid leukemia	
		hsa05214:Glioma	
		hsa05211:Renal cell carcinoma	
		hsa05218:Melanoma	
		hsa05212:Pancreatic cancer	
		hsa05220:Chronic myeloid leukemia	
		hsa04370:VEGF signaling pathway	
		hsa04662:B cell receptor signaling pathway	
m256 3	B	hsa04664:Fc epsilon RI signaling pathway	Other
		hsa05210:Colorectal cancer	
		hsa04914:Progesterone-mediated oocyte maturation	
		hsa04210:Apoptosis	
		hsa05215:Prostate cancer	
		hsa04666:Fc gamma R-mediated phagocytosis	
		hsa04620:Toll-like receptor signaling pathway	
		hsa04660:T cell receptor signaling pathway	
		hsa04722:Neurotrophin signaling pathway	
		hsa04910:Insulin signaling pathway	
		hsa04630:Jak-STAT signaling pathway	
		hsa04062:Chemokine signaling pathway	
		hsa05222:Small cell lung cancer	
		hsa05200:Pathways in cancer	
		hsa04510:Focal adhesion	
		hsa04150:mTOR signaling pathway	
		hsa05213:Endometrial cancer	
m256 4	B	hsa05223:Non-small cell lung cancer	hsa04310:Wnt signaling pathway
		hsa05221:Acute myeloid leukemia	hsa04114:Oocyte meiosis
		hsa05214:Glioma	
		hsa05211:Renal cell	

		carcinoma hsa05218:Melanoma hsa05212:Pancreatic cancer hsa05220:Chronic myeloid leukemia hsa04370:VEGF signaling pathway hsa04662:B cell receptor signaling pathway hsa04664:Fc epsilon RI signaling pathway hsa05210:Colorectal cancer hsa05222:Small cell lung cancer hsa04914:Progesterone-mediated oocyte maturation hsa04012:ErbB signaling pathway hsa04210:Apoptosis hsa05215:Prostate cancer hsa04666:Fc gamma R-mediated phagocytosis hsa04620:Toll-like receptor signaling pathway hsa04660:T cell receptor signaling pathway hsa04722:Neurotrophin signaling pathway hsa04910:Insulin signaling pathway hsa04630:Jak-STAT signaling pathway hsa04062:Chemokine signaling pathway hsa04510:Focal adhesion hsa05200:Pathways in cancer	
		hsa05213:Endometrial cancer hsa05223:Non-small cell lung cancer hsa05211:Renal cell carcinoma hsa05218:Melanoma hsa05212:Pancreatic cancer hsa04370:VEGF signaling pathway hsa04662:B cell receptor signaling pathway hsa05220:Chronic myeloid leukemia hsa04664:Fc epsilon RI signaling pathway hsa05222:Small cell lung cancer hsa05210:Colorectal cancer hsa04914:Progesterone-mediated oocyte maturation hsa04210:Apoptosis	
m256 5	B		Other

		hsa04666:Fc gamma R-mediated phagocytosis hsa04620:Toll-like receptor signaling pathway hsa04660:T cell receptor signaling pathway hsa04722:Neurotrophin signaling pathway hsa04630:Jak-STAT signaling pathway hsa04062:Chemokine signaling pathway hsa04510:Focal adhesion hsa05221:Acute myeloid leukemia hsa05214:Glioma hsa04012:ErbB signaling pathway hsa05215:Prostate cancer hsa04910:Insulin signaling pathway hsa05200:Pathways in cancer hsa04150:mTOR signaling pathway	
		hsa04150:mTOR signaling pathway hsa05213:Endometrial cancer hsa05223:Non-small cell lung cancer hsa05221:Acute myeloid leukemia hsa05214:Glioma hsa05211:Renal cell carcinoma hsa05218:Melanoma hsa05212:Pancreatic cancer hsa04662:B cell receptor signaling pathway hsa04370:VEGF signaling pathway hsa05220:Chronic myeloid leukemia hsa04664:Fc epsilon RI signaling pathway hsa05222:Small cell lung cancer hsa05210:Colorectal cancer hsa04914:Progesterone-medi ated oocyte maturation hsa04012:ErbB signaling pathway hsa04210:Apoptosis hsa05215:Prostate cancer hsa04666:Fc gamma R-mediated phagocytosis hsa04620:Toll-like receptor signaling pathway	hsa04114:Oocyte meiosis

m256
6

B

		hsa04660:T cell receptor signaling pathway	
		hsa04722:Neurotrophin signaling pathway	
		hsa04910:Insulin signaling pathway	
		hsa04630:Jak-STAT signaling pathway	
		hsa04062:Chemokine signaling pathway	
		hsa04510:Focal adhesion	
		hsa05200:Pathways in cancer	
		hsa05221:Acute myeloid leukemia	
		hsa05214:Glioma	
		hsa05211:Renal cell carcinoma	
		hsa05218:Melanoma	
		hsa05212:Pancreatic cancer	
		hsa04370:VEGF signaling pathway	
		hsa04662:B cell receptor signaling pathway	
		hsa05220:Chronic myeloid leukemia	
		hsa04664:Fc epsilon RI signaling pathway	
		hsa05222:Small cell lung cancer	
		hsa05210:Colorectal cancer	
		hsa04914:Progesterone-mediated oocyte maturation	
		hsa04012:ErbB signaling pathway	
m256	B	hsa04210:Apoptosis	Other
7		hsa04666:Fc gamma R-mediated phagocytosis	
		hsa04620:Toll-like receptor signaling pathway	
		hsa04660:T cell receptor signaling pathway	
		hsa04722:Neurotrophin signaling pathway	
		hsa04630:Jak-STAT signaling pathway	
		hsa04062:Chemokine signaling pathway	
		hsa05200:Pathways in cancer	
		hsa04150:mTOR signaling pathway	
		hsa05213:Endometrial cancer	
		hsa05223:Non-small cell lung cancer	
		hsa05215:Prostate cancer	
		hsa04910:Insulin signaling pathway	
		hsa04510:Focal adhesion	

m256 8	B	hsa05213:Endometrial cancer hsa04150:mTOR signaling pathway hsa05223:Non-small cell lung cancer hsa05221:Acute myeloid leukemia hsa05214:Glioma hsa05211:Renal cell carcinoma hsa05218:Melanoma hsa05212:Pancreatic cancer hsa04370:VEGF signaling pathway hsa04662:B cell receptor signaling pathway hsa05220:Chronic myeloid leukemia hsa04664:Fc epsilon RI signaling pathway hsa05222:Small cell lung cancer hsa05210:Colorectal cancer hsa04914:Progesterone-mediated oocyte maturation hsa04012:ErbB signaling pathway hsa04210:Apoptosis hsa05215:Prostate cancer hsa04666:Fc gamma R-mediated phagocytosis hsa04620:Toll-like receptor signaling pathway hsa04660:T cell receptor signaling pathway hsa04722:Neurotrophin signaling pathway hsa04910:Insulin signaling pathway hsa04630:Jak-STAT signaling pathway hsa04062:Chemokine signaling pathway hsa04510:Focal adhesion hsa05200:Pathways in cancer	hsa04110:Cell cycle hsa03450:Non-homologous end-joining
m256 9	B	hsa05213:Endometrial cancer hsa04150:mTOR signaling pathway hsa05223:Non-small cell lung cancer hsa05221:Acute myeloid leukemia hsa05214:Glioma hsa05211:Renal cell carcinoma hsa05218:Melanoma	Other

		hsa05212:Pancreatic cancer	
		hsa05220:Chronic myeloid leukemia	
		hsa04662:B cell receptor signaling pathway	
		hsa04370:VEGF signaling pathway	
		hsa04664:Fc epsilon RI signaling pathway	
		hsa05210:Colorectal cancer	
		hsa05222:Small cell lung cancer	
		hsa04914:Progesterone-mediated oocyte maturation	
		hsa04012:ErbB signaling pathway	
		hsa04210:Apoptosis	
		hsa05215:Prostate cancer	
		hsa04666:Fc gamma R-mediated phagocytosis	
		hsa04620:Toll-like receptor signaling pathway	
		hsa04660:T cell receptor signaling pathway	
		hsa04722:Neurotrophin signaling pathway	
		hsa04910:Insulin signaling pathway	
		hsa04630:Jak-STAT signaling pathway	
		hsa04062:Chemokine signaling pathway	
		hsa04510:Focal adhesion	
		hsa05200:Pathways in cancer	
		hsa05213:Endometrial cancer	
		hsa04150:mTOR signaling pathway	
		hsa05223:Non-small cell lung cancer	
		hsa05221:Acute myeloid leukemia	
		hsa05214:Glioma	
		hsa05211:Renal cell carcinoma	
m257	B	hsa05218:Melanoma	Other
0		hsa05212:Pancreatic cancer	
		hsa04370:VEGF signaling pathway	
		hsa04662:B cell receptor signaling pathway	
		hsa05220:Chronic myeloid leukemia	
		hsa04664:Fc epsilon RI signaling pathway	
		hsa05222:Small cell lung cancer	
		hsa05210:Colorectal cancer	

		hsa04914:Progesterone-mediated oocyte maturation	
		hsa04012:ErbB signaling pathway	
		hsa04210:Apoptosis	
		hsa05215:Prostate cancer	
		hsa04666:Fc gamma R-mediated phagocytosis	
		hsa04620:Toll-like receptor signaling pathway	
		hsa04660:T cell receptor signaling pathway	
		hsa04722:Neurotrophin signaling pathway	
		hsa04910:Insulin signaling pathway	
		hsa04630:Jak-STAT signaling pathway	
		hsa04062:Chemokine signaling pathway	
		hsa04510:Focal adhesion	
		hsa05200:Pathways in cancer	
		hsa04150:mTOR signaling pathway	
		hsa05213:Endometrial cancer	
		hsa05223:Non-small cell lung cancer	
		hsa05221:Acute myeloid leukemia	
		hsa05214:Glioma	
		hsa05211:Renal cell carcinoma	
		hsa05218:Melanoma	
		hsa05212:Pancreatic cancer	
		hsa04662:B cell receptor signaling pathway	
		hsa04370:VEGF signaling pathway	
m257	B	hsa05220:Chronic myeloid leukemia	Other
1		hsa04664:Fc epsilon RI signaling pathway	
		hsa05222:Small cell lung cancer	
		hsa05210:Colorectal cancer	
		hsa04914:Progesterone-mediated oocyte maturation	
		hsa04210:Apoptosis	
		hsa04012:ErbB signaling pathway	
		hsa05215:Prostate cancer	
		hsa04666:Fc gamma R-mediated phagocytosis	
		hsa04620:Toll-like receptor signaling pathway	
		hsa04660:T cell receptor signaling pathway	

		hsa04722:Neurotrophin signaling pathway hsa04910:Insulin signaling pathway hsa04630:Jak-STAT signaling pathway hsa04062:Chemokine signaling pathway hsa04510:Focal adhesion hsa05200:Pathways in cancer	
		hsa05221:Acute myeloid leukemia hsa05214:Glioma hsa05211:Renal cell carcinoma hsa05218:Melanoma hsa05212:Pancreatic cancer hsa05220:Chronic myeloid leukemia hsa04370:VEGF signaling pathway hsa04662:B cell receptor signaling pathway hsa04664:Fc epsilon RI signaling pathway hsa05222:Small cell lung cancer hsa05210:Colorectal cancer hsa04012:ErbB signaling pathway hsa04210:Apoptosis hsa04666:Fc gamma R-mediated phagocytosis	
m257 2	B	hsa04620:Toll-like receptor signaling pathway hsa04660:T cell receptor signaling pathway hsa04722:Neurotrophin signaling pathway hsa04630:Jak-STAT signaling pathway hsa04062:Chemokine signaling pathway hsa05200:Pathways in cancer hsa04914:Progesterone-mediated oocyte maturation hsa05213:Endometrial cancer hsa05223:Non-small cell lung cancer hsa04510:Focal adhesion hsa04150:mTOR signaling pathway hsa05215:Prostate cancer hsa04910:Insulin signaling pathway	Other
m257	A	hsa05211:Renal cell carcinoma	

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	hsa05212:Pancreatic cancer
	hsa04662:B cell receptor signaling pathway
	hsa04370:VEGF signaling pathway
	hsa04664:Fc epsilon RI signaling pathway
	hsa05210:Colorectal cancer
	hsa04666:Fc gamma R-mediated phagocytosis
	hsa04620:Toll-like receptor signaling pathway
	hsa04722:Neurotrophin signaling pathway
	hsa04062:Chemokine signaling pathway
	hsa04510:Focal adhesion
	hsa05200:Pathways in cancer
	hsa04150:mTOR signaling pathway
	hsa05213:Endometrial cancer
	hsa05223:Non-small cell lung cancer
	hsa05221:Acute myeloid leukemia
	hsa05214:Glioma
	hsa05218:Melanoma
	hsa05220:Chronic myeloid leukemia
	hsa05222:Small cell lung cancer
	hsa04914:Progesterone-mediated oocyte maturation
	hsa04210:Apoptosis
	hsa04012:ErbB signaling pathway
	hsa05215:Prostate cancer
	hsa04660:T cell receptor signaling pathway
	hsa04910:Insulin signaling pathway
B	hsa04630:Jak-STAT signaling pathway
	hsa05211:Renal cell carcinoma
	hsa05212:Pancreatic cancer
	hsa04662:B cell receptor signaling pathway
	hsa04370:VEGF signaling pathway
	hsa04664:Fc epsilon RI signaling pathway
	hsa05210:Colorectal cancer
	hsa04666:Fc gamma R-mediated phagocytosis
	hsa04620:Toll-like receptor signaling pathway
	hsa04722:Neurotrophin signaling pathway
	hsa04062:Chemokine signaling pathway
	hsa04510:Focal adhesion
	hsa05200:Pathways in cancer
	hsa05210:Colorectal cancer
	hsa04666:Fc gamma R-mediated phagocytosis
	hsa04620:Toll-like receptor signaling pathway
	hsa04722:Neurotrophin signaling pathway
	hsa04062:Chemokine signaling pathway
	hsa04510:Focal adhesion
	hsa05200:Pathways in cancer
	hsa04960:Aldosterone-regulated sodium reabsorption

		hsa04930:Type II diabetes mellitus
		hsa04070:Phosphatidylinositol signaling system
		hsa04670:Leukocyte transendothelial migration
		hsa04650:Natural killer cell mediated cytotoxicity
		hsa04810:Regulation of actin cytoskeleton
		hsa04150:mTOR signaling pathway
		hsa05213:Endometrial cancer
		hsa05223:Non-small cell lung cancer
		hsa05221:Acute myeloid leukemia
		hsa05214:Glioma
		hsa05218:Melanoma
		hsa05220:Chronic myeloid leukemia
		hsa05222:Small cell lung cancer
		hsa04914:Progesterone-mediated oocyte maturation
		hsa04210:Apoptosis
		hsa04012:ErbB signaling pathway
		hsa05215:Prostate cancer
		hsa04660:T cell receptor signaling pathway
B		hsa04910:Insulin signaling pathway
		hsa04630:Jak-STAT signaling pathway
		hsa05211:Renal cell carcinoma
		hsa05212:Pancreatic cancer
		hsa04662:B cell receptor signaling pathway
		hsa04370:VEGF signaling pathway
		hsa04664:Fc epsilon RI signaling pathway
		hsa05210:Colorectal cancer
		hsa04666:Fc gamma R-mediated phagocytosis
		hsa04620:Toll-like receptor signaling pathway
		hsa04722:Neurotrophin signaling pathway
		hsa04062:Chemokine signaling pathway
		hsa04510:Focal adhesion
		hsa05200:Pathways in cancer
		hsa04670:Leukocyte transendothelial migration
		hsa04650:Natural killer cell mediated cytotoxicity
		hsa04810:Regulation of actin cytoskeleton
C		hsa04670:Leukocyte
		hsa04920:Adipocytokine

	transendothelial migration hsa04650:Natural killer cell mediated cytotoxicity hsa04810:Regulation of actin cytoskeleton hsa05211:Renal cell carcinoma hsa05212:Pancreatic cancer hsa04662:B cell receptor signaling pathway hsa04370:VEGF signaling pathway hsa04664:Fc epsilon RI signaling pathway hsa05210:Colorectal cancer hsa04666:Fc gamma R-mediated phagocytosis hsa04620:Toll-like receptor signaling pathway hsa04722:Neurotrophin signaling pathway hsa04062:Chemokine signaling pathway hsa04510:Focal adhesion hsa05200:Pathways in cancer	signaling pathway hsa04530:Tight junction hsa04010:MAPK signaling pathway hsa04150:mTOR signaling pathway hsa05213:Endometrial cancer hsa05223:Non-small cell lung cancer hsa05221:Acute myeloid leukemia hsa05214:Glioma hsa05218:Melanoma hsa05220:Chronic myeloid leukemia hsa05222:Small cell lung cancer hsa04914:Progesterone-mediat ed oocyte maturation hsa04210:Apoptosis hsa04012:ErbB signaling pathway hsa05215:Prostate cancer hsa04660:T cell receptor signaling pathway hsa04910:Insulin signaling pathway hsa04630:Jak-STAT signaling pathway hsa05211:Renal cell carcinoma hsa05212:Pancreatic cancer hsa04662:B cell receptor signaling pathway hsa04370:VEGF signaling pathway hsa04664:Fc epsilon RI signaling pathway hsa05210:Colorectal cancer hsa04666:Fc gamma R-mediated phagocytosis hsa04620:Toll-like receptor signaling pathway hsa04722:Neurotrophin signaling pathway hsa04062:Chemokine signaling pathway hsa04510:Focal adhesion hsa05200:Pathways in cancer
	hsa05211:Renal cell carcinoma hsa05212:Pancreatic cancer hsa04662:B cell receptor signaling pathway hsa04370:VEGF signaling pathway hsa04664:Fc epsilon RI signaling pathway hsa05210:Colorectal cancer hsa04666:Fc gamma R-mediated phagocytosis hsa04620:Toll-like receptor signaling pathway hsa04722:Neurotrophin signaling pathway	
m277 6	A	

	hsa04062:Chemokine signaling pathway hsa04510:Focal adhesion hsa05200:Pathways in cancer
	hsa04150:mTOR signaling pathway hsa05213:Endometrial cancer hsa05223:Non-small cell lung cancer hsa05221:Acute myeloid leukemia hsa05214:Glioma hsa05218:Melanoma hsa05220:Chronic myeloid leukemia hsa05222:Small cell lung cancer hsa04914:Progesterone-mediated oocyte maturation hsa04210:Apoptosis hsa04012:ErbB signaling pathway hsa05215:Prostate cancer hsa04660:T cell receptor signaling pathway hsa04910:Insulin signaling pathway hsa04630:Jak-STAT signaling pathway hsa05211:Renal cell carcinoma hsa05212:Pancreatic cancer hsa04662:B cell receptor signaling pathway hsa04370:VEGF signaling pathway hsa04664:Fc epsilon RI signaling pathway hsa05210:Colorectal cancer hsa04666:Fc gamma R-mediated phagocytosis hsa04620:Toll-like receptor signaling pathway hsa04722:Neurotrophin signaling pathway hsa04062:Chemokine signaling pathway hsa04510:Focal adhesion hsa05200:Pathways in cancer
B	hsa04010:MAPK signaling pathway hsa05211:Renal cell carcinoma hsa05212:Pancreatic cancer hsa04662:B cell receptor signaling pathway hsa04370:VEGF signaling pathway hsa04664:Fc epsilon RI signaling pathway hsa05210:Colorectal cancer hsa04666:Fc gamma R-mediated phagocytosis hsa04620:Toll-like receptor signaling pathway hsa04722:Neurotrophin signaling pathway hsa04062:Chemokine signaling pathway hsa04510:Focal adhesion hsa05200:Pathways in cancer hsa04960:Aldosterone-regulated sodium reabsorption hsa04930:Type II diabetes mellitus hsa04070:Phosphatidylinositol signaling system hsa04670:Leukocyte transendothelial migration hsa04650:Natural killer cell mediated cytotoxicity

		hsa04810:Regulation of actin cytoskeleton
		hsa04150:mTOR signaling pathway
		hsa05213:Endometrial cancer
		hsa05223:Non-small cell lung cancer
		hsa05221:Acute myeloid leukemia
		hsa05214:Glioma
		hsa05218:Melanoma
		hsa05220:Chronic myeloid leukemia
		hsa05222:Small cell lung cancer
		hsa04914:Progesterone-mediated oocyte maturation
		hsa04210:Apoptosis
		hsa04012:ErbB signaling pathway
		hsa05215:Prostate cancer
		hsa04660:T cell receptor signaling pathway
B		hsa04910:Insulin signaling pathway
		hsa04630:Jak-STAT signaling pathway
		hsa05211:Renal cell carcinoma
		hsa05212:Pancreatic cancer
		hsa04662:B cell receptor signaling pathway
		hsa04370:VEGF signaling pathway
		hsa04664:Fc epsilon RI signaling pathway
		hsa05210:Colorectal cancer
		hsa04666:Fc gamma R-mediated phagocytosis
		hsa04620:Toll-like receptor signaling pathway
		hsa04722:Neurotrophin signaling pathway
		hsa04062:Chemokine signaling pathway
		hsa04510:Focal adhesion
		hsa05200:Pathways in cancer
		hsa04670:Leukocyte transendothelial migration
		hsa04650:Natural killer cell mediated cytotoxicity
C		hsa04810:Regulation of actin cytoskeleton
		hsa05211:Renal cell carcinoma
		hsa05212:Pancreatic cancer
		hsa04920:Adipocytokine signaling pathway
		hsa04530:Tight junction
		hsa04010:MAPK signaling pathway
		hsa04150:mTOR signaling pathway
		hsa05213:Endometrial cancer
		hsa05223:Non-small cell lung

		hsa04662:B cell receptor signaling pathway hsa04370:VEGF signaling pathway hsa04664:Fc epsilon RI signaling pathway hsa05210:Colorectal cancer hsa04666:Fc gamma R-mediated phagocytosis hsa04620:Toll-like receptor signaling pathway hsa04722:Neurotrophin signaling pathway hsa04062:Chemokine signaling pathway hsa04510:Focal adhesion hsa05200:Pathways in cancer	cancer hsa05221:Acute myeloid leukemia hsa05214:Glioma hsa05218:Melanoma hsa05220:Chronic myeloid leukemia hsa05222:Small cell lung cancer hsa04914:Progesterone-mediated oocyte maturation hsa04210:Apoptosis hsa04012:ErbB signaling pathway hsa05215:Prostate cancer hsa04660:T cell receptor signaling pathway hsa04910:Insulin signaling pathway hsa04630:Jak-STAT signaling pathway hsa05211:Renal cell carcinoma hsa05212:Pancreatic cancer hsa04662:B cell receptor signaling pathway hsa04370:VEGF signaling pathway hsa04664:Fc epsilon RI signaling pathway hsa05210:Colorectal cancer hsa04666:Fc gamma R-mediated phagocytosis hsa04620:Toll-like receptor signaling pathway hsa04722:Neurotrophin signaling pathway hsa04062:Chemokine signaling pathway hsa04510:Focal adhesion hsa05200:Pathways in cancer
			hsa04120:Ubiquitin mediated proteolysis hsa04912:GnRH signaling pathway hsa04622:RIG-I-like receptor signaling pathway hsa04722:Neurotrophin signaling pathway hsa04010:MAPK signaling pathway
m329 6	B	hsa05215:Prostate cancer	hsa04916:Melanogenesis hsa05016:Huntington's disease hsa04612:Antigen processing and presentation hsa05215:Prostate cancer
	C	hsa04722:Neurotrophin signaling pathway hsa04010:MAPK signaling pathway	
m331	B	hsa05215:Prostate cancer	hsa04370:VEGF signaling

6			pathway hsa04722:Neurotrophin signaling pathway hsa04010:MAPK signaling pathway
	C	hsa04370:VEGF signaling pathway hsa04722:Neurotrophin signaling pathway hsa04010:MAPK signaling pathway	hsa04612:Antigen processing and presentation hsa04916:Melanogenesis hsa05016:Huntington's disease hsa05215:Prostate cancer
m342 5	B	hsa05215:Prostate cancer	Other
m356 9	B	hsa05215:Prostate cancer	Other
	A	hsa05210:Colorectal cancer hsa04722:Neurotrophin signaling pathway hsa04510:Focal adhesion hsa05200:Pathways in cancer	hsa04930:Type II diabetes mellitus hsa04621:NOD-like receptor signaling pathway hsa04310:Wnt signaling pathway hsa05120:Epithelial cell signaling in Helicobacter pylori infection hsa04622:RIG-I-like receptor signaling pathway hsa04912:GnRH signaling pathway hsa04920:Adipocytokine signaling pathway hsa05212:Pancreatic cancer hsa04664:Fc epsilon RI signaling pathway hsa04914:Progesterone-mediated oocyte maturation hsa04012:ErbB signaling pathway hsa04620:Toll-like receptor signaling pathway hsa04910:Insulin signaling pathway hsa04010:MAPK signaling pathway hsa05210:Colorectal cancer hsa04722:Neurotrophin signaling pathway hsa04510:Focal adhesion hsa05200:Pathways in cancer
m374 8	B	hsa05222:Small cell lung cancer hsa04210:Apoptosis hsa05215:Prostate cancer hsa05210:Colorectal cancer hsa04722:Neurotrophin signaling pathway hsa04510:Focal adhesion hsa05200:Pathways in cancer	hsa04920:Adipocytokine signaling pathway hsa05212:Pancreatic cancer hsa04664:Fc epsilon RI signaling pathway hsa04210:Apoptosis
	C	hsa04920:Adipocytokine signaling pathway hsa05212:Pancreatic cancer hsa04664:Fc epsilon RI signaling pathway	hsa05014:Amyotrophic lateral sclerosis (ALS) hsa05222:Small cell lung cancer hsa04210:Apoptosis

	hsa04914:Progesterone-mediated oocyte maturation hsa04012:ErbB signaling pathway hsa04620:Toll-like receptor signaling pathway hsa04910:Insulin signaling pathway hsa04010:MAPK signaling pathway hsa05210:Colorectal cancer hsa04722:Neurotrophin signaling pathway hsa04510:Focal adhesion hsa05200:Pathways in cancer	hsa05215:Prostate cancer hsa05210:Colorectal cancer hsa04722:Neurotrophin signaling pathway hsa04510:Focal adhesion hsa05200:Pathways in cancer
	A	hsa04010:MAPK signaling pathway
		hsa04670:Leukocyte transendothelial migration hsa05120:Epithelial cell signaling in Helicobacter pylori infection hsa04912:GnRH signaling pathway hsa04622:RIG-I-like receptor signaling pathway hsa04621:NOD-like receptor signaling pathway hsa05014:Amyotrophic lateral sclerosis (ALS) hsa04370:VEGF signaling pathway hsa04664:Fc epsilon RI signaling pathway hsa04914:Progesterone-mediated oocyte maturation hsa04620:Toll-like receptor signaling pathway hsa04660:T cell receptor signaling pathway hsa04722:Neurotrophin signaling pathway hsa04010:MAPK signaling pathway
	B	hsa05213:Endometrial cancer hsa05221:Acute myeloid leukemia hsa05220:Chronic myeloid leukemia hsa05210:Colorectal cancer hsa05222:Small cell lung cancer hsa04012:ErbB signaling pathway hsa04630:Jak-STAT signaling pathway hsa05200:Pathways in cancer hsa04010:MAPK signaling pathway
m3760		
	C	hsa04370:VEGF signaling pathway hsa04664:Fc epsilon RI signaling pathway hsa04914:Progesterone-mediated oocyte maturation hsa04620:Toll-like receptor signaling pathway hsa04660:T cell receptor signaling pathway hsa04722:Neurotrophin signaling pathway hsa04010:MAPK signaling pathway
		hsa05219:Bladder cancer hsa05216:Thyroid cancer hsa04110:Cell cycle hsa04350:TGF-beta signaling pathway hsa04310:Wnt signaling pathway hsa04010:MAPK signaling pathway hsa05213:Endometrial cancer hsa05221:Acute myeloid leukemia hsa05220:Chronic myeloid leukemia

			hsa05210:Colorectal cancer hsa05222:Small cell lung cancer hsa04012:ErbB signaling pathway hsa04630:Jak-STAT signaling pathway hsa05200:Pathways in cancer
			hsa05014:Amyotrophic lateral sclerosis (ALS) hsa05120:Epithelial cell signaling in Helicobacter pylori infection hsa04622:RIG-I-like receptor signaling pathway hsa04621:NOD-like receptor signaling pathway hsa04912:GnRH signaling pathway hsa04670:Leukocyte transendothelial migration hsa04370:VEGF signaling pathway hsa04664:Fc epsilon RI signaling pathway hsa04914:Progesterone-mediated oocyte maturation hsa04620:Toll-like receptor signaling pathway hsa04660:T cell receptor signaling pathway hsa04722:Neurotrophin signaling pathway hsa04010:MAPK signaling pathway
m376 3	B	hsa05215:Prostate cancer	
			hsa04370:VEGF signaling pathway hsa04664:Fc epsilon RI signaling pathway hsa04914:Progesterone-mediated oocyte maturation hsa04620:Toll-like receptor signaling pathway hsa04660:T cell receptor signaling pathway hsa04722:Neurotrophin signaling pathway hsa04010:MAPK signaling pathway
			hsa04612:Antigen processing and presentation hsa04916:Melanogenesis hsa05016:Huntington's disease hsa05215:Prostate cancer
m385 7	B	hsa04150:mTOR signaling pathway hsa05213:Endometrial cancer hsa05223:Non-small cell lung cancer hsa05221:Acute myeloid leukemia	hsa04310:Wnt signaling pathway hsa04114:Oocyte meiosis

		hsa05214:Glioma hsa05211:Renal cell carcinoma hsa05218:Melanoma hsa05212:Pancreatic cancer hsa05220:Chronic myeloid leukemia hsa04370:VEGF signaling pathway hsa04662:B cell receptor signaling pathway hsa04664:Fc epsilon RI signaling pathway hsa05210:Colorectal cancer hsa05222:Small cell lung cancer hsa04914:Progesterone-mediated oocyte maturation hsa04012:ErbB signaling pathway hsa04210:Apoptosis hsa05215:Prostate cancer hsa04666:Fc gamma R-mediated phagocytosis hsa04620:Toll-like receptor signaling pathway hsa04660:T cell receptor signaling pathway hsa04722:Neurotrophin signaling pathway hsa04910:Insulin signaling pathway hsa04630:Jak-STAT signaling pathway hsa04062:Chemokine signaling pathway hsa04510:Focal adhesion hsa05200:Pathways in cancer	
m385 9	B	hsa04150:mTOR signaling pathway hsa05213:Endometrial cancer hsa05223:Non-small cell lung cancer hsa05221:Acute myeloid leukemia hsa05214:Glioma hsa05211:Renal cell carcinoma hsa05218:Melanoma hsa05212:Pancreatic cancer hsa04662:B cell receptor signaling pathway hsa04370:VEGF signaling pathway hsa05220:Chronic myeloid leukemia hsa04664:Fc epsilon RI	hsa04114:Oocyte meiosis

		signaling pathway hsa05222:Small cell lung cancer hsa05210:Colorectal cancer hsa04914:Progesterone-mediated oocyte maturation hsa04012:ErbB signaling pathway hsa04210:Apoptosis hsa05215:Prostate cancer hsa04666:Fc gamma R-mediated phagocytosis hsa04620:Toll-like receptor signaling pathway hsa04660:T cell receptor signaling pathway hsa04722:Neurotrophin signaling pathway hsa04910:Insulin signaling pathway hsa04630:Jak-STAT signaling pathway hsa04062:Chemokine signaling pathway hsa04510:Focal adhesion hsa05200:Pathways in cancer	
			hsa05014:Amyotrophic lateral sclerosis (ALS) hsa04621:NOD-like receptor signaling pathway hsa05120:Epithelial cell signaling in Helicobacter pylori infection hsa04622:RIG-I-like receptor signaling pathway hsa04912:GnRH signaling pathway hsa04670:Leukocyte transendothelial migration hsa04370:VEGF signaling pathway hsa04664:Fc epsilon RI signaling pathway hsa04914:Progesterone-mediated oocyte maturation hsa04620:Toll-like receptor signaling pathway hsa04660:T cell receptor signaling pathway hsa04722:Neurotrophin signaling pathway hsa04010:MAPK signaling pathway
m392 1	B	hsa05215:Prostate cancer	
	C	hsa04370:VEGF signaling pathway hsa04664:Fc epsilon RI signaling pathway	hsa04916:Melanogenesis hsa04612:Antigen processing and presentation hsa05016:Huntington's disease

		hsa04914:Progesterone-mediated oocyte maturation hsa04620:Toll-like receptor signaling pathway hsa04660:T cell receptor signaling pathway hsa04722:Neurotrophin signaling pathway hsa04010:MAPK signaling pathway	hsa05215:Prostate cancer
	A		hsa05215:Prostate cancer
m392 5	B	hsa04916:Melanogenesis hsa05215:Prostate cancer	hsa04630:Jak-STAT signaling pathway hsa04530:Tight junction hsa05222:Small cell lung cancer hsa04920:Adipocytokine signaling pathway hsa04210:Apoptosis hsa05215:Prostate cancer hsa04150:mTOR signaling pathway hsa05213:Endometrial cancer hsa05223:Non-small cell lung cancer hsa05221:Acute myeloid leukemia hsa05214:Glioma hsa05211:Renal cell carcinoma hsa05218:Melanoma hsa05212:Pancreatic cancer hsa04662:B cell receptor signaling pathway hsa05220:Chronic myeloid leukemia hsa04370:VEGF signaling pathway hsa04664:Fc epsilon RI signaling pathway hsa05210:Colorectal cancer hsa04914:Progesterone-mediated oocyte maturation hsa04012:ErbB signaling pathway hsa04666:Fc gamma R-mediated phagocytosis hsa04620:Toll-like receptor signaling pathway hsa04660:T cell receptor signaling pathway hsa04722:Neurotrophin signaling pathway hsa04910:Insulin signaling pathway hsa04062:Chemokine signaling pathway

			hsa04510:Focal adhesion hsa04010:MAPK signaling pathway hsa05200:Pathways in cancer
			hsa04150:mTOR signaling pathway hsa05213:Endometrial cancer hsa05223:Non-small cell lung cancer hsa05221:Acute myeloid leukemia hsa05214:Glioma hsa05211:Renal cell carcinoma hsa05218:Melanoma hsa05212:Pancreatic cancer hsa04662:B cell receptor signaling pathway hsa05220:Chronic myeloid leukemia hsa04370:VEGF signaling pathway hsa04664:Fc epsilon RI signaling pathway hsa05210:Colorectal cancer hsa04914:Progesterone-medi ated oocyte maturation hsa04012:ErbB signaling pathway hsa04666:Fc gamma R-mediated phagocytosis hsa04620:Toll-like receptor signaling pathway hsa04660:T cell receptor signaling pathway hsa04722:Neurotrophin signaling pathway hsa04910:Insulin signaling pathway hsa04062:Chemokine signaling pathway hsa04510:Focal adhesion hsa04010:MAPK signaling pathway hsa05200:Pathways in cancer hsa05215:Prostate cancer
	C		hsa04612:Antigen processing and presentation hsa05016:Huntington's disease hsa05215:Prostate cancer hsa04916:Melanogenesis
m392 7	B	hsa05215:Prostate cancer	hsa04114:Oocyte meiosis hsa04720:Long-term potentiation hsa04150:mTOR signaling pathway hsa04914:Progesterone-medi ated oocyte maturation hsa04722:Neurotrophin signaling pathway hsa04010:MAPK signaling

		pathway
	C	hsa04150:mTOR signaling pathway hsa04914:Progesterone-mediated oocyte maturation hsa04722:Neurotrophin signaling pathway hsa04010:MAPK signaling pathway hsa04612:Antigen processing and presentation hsa05016:Huntington's disease hsa04916:Melanogenesis hsa05215:Prostate cancer
m392	B	hsa05215:Prostate cancer hsa05219:Bladder cancer hsa04722:Neurotrophin signaling pathway hsa04010:MAPK signaling pathway
8	C	hsa04722:Neurotrophin signaling pathway hsa04010:MAPK signaling pathway hsa05016:Huntington's disease hsa04916:Melanogenesis hsa04612:Antigen processing and presentation hsa05215:Prostate cancer
	A	hsa05213:Endometrial cancer hsa04150:mTOR signaling pathway hsa05223:Non-small cell lung cancer hsa05215:Prostate cancer hsa04910:Insulin signaling pathway hsa04510:Focal adhesion
m408	C	hsa05221:Acute myeloid leukemia hsa05214:Glioma hsa05211:Renal cell carcinoma hsa05218:Melanoma hsa05212:Pancreatic cancer hsa04662:B cell receptor signaling pathway hsa05220:Chronic myeloid leukemia hsa04370:VEGF signaling pathway hsa04664:Fc epsilon RI signaling pathway hsa05210:Colorectal cancer hsa05222:Small cell lung cancer hsa04914:Progesterone-mediated oocyte maturation hsa04210:Apoptosis hsa04012:ErbB signaling pathway hsa04666:Fc gamma R-mediated phagocytosis hsa04620:Toll-like receptor signaling pathway hsa04660:T cell receptor signaling pathway hsa04722:Neurotrophin signaling pathway hsa04630:Jak-STAT hsa03320:PPAR signaling pathway hsa05213:Endometrial cancer hsa04150:mTOR signaling pathway hsa05223:Non-small cell lung cancer hsa05215:Prostate cancer hsa04910:Insulin signaling pathway hsa04510:Focal adhesion hsa04960:Aldosterone-regulated sodium reabsorption
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	signaling pathway hsa04062:Chemokine signaling pathway hsa05200:Pathways in cancer hsa05213:Endometrial cancer hsa04150:mTOR signaling pathway hsa05223:Non-small cell lung cancer hsa05215:Prostate cancer hsa04910:Insulin signaling pathway hsa04510:Focal adhesion	
		hsa04530:Tight junction hsa04920:Adipocytokine signaling pathway hsa04010:MAPK signaling pathway hsa05221:Acute myeloid leukemia hsa05214:Glioma hsa05211:Renal cell carcinoma hsa05218:Melanoma hsa05212:Pancreatic cancer hsa04662:B cell receptor signaling pathway hsa05220:Chronic myeloid leukemia
C	hsa04960:Aldosterone-regula ted sodium reabsorption hsa05213:Endometrial cancer hsa04150:mTOR signaling pathway hsa05223:Non-small cell lung cancer hsa05215:Prostate cancer hsa04910:Insulin signaling pathway hsa04510:Focal adhesion	hsa04370:VEGF signaling pathway hsa04664:Fc epsilon RI signaling pathway hsa05210:Colorectal cancer hsa05222:Small cell lung cancer hsa04914:Progesterone-mediat ed oocyte maturation hsa04210:Apoptosis hsa04012:ErbB signaling pathway hsa04666:Fc gamma R-mediated phagocytosis hsa04620:Toll-like receptor signaling pathway hsa04660:T cell receptor signaling pathway hsa04722:Neurotrophin signaling pathway hsa04630:Jak-STAT signaling pathway hsa04062:Chemokine signaling pathway hsa05200:Pathways in cancer hsa05213:Endometrial cancer hsa04150:mTOR signaling pathway

		hsa05223:Non-small cell lung cancer	
		hsa05215:Prostate cancer	
		hsa04910:Insulin signaling pathway	
		hsa04510:Focal adhesion	
		hsa05211:Renal cell carcinoma	
		hsa04012:ErbB signaling pathway	
A		hsa04666:Fc gamma R-mediated phagocytosis	
		hsa04660:T cell receptor signaling pathway	
		hsa04062:Chemokine signaling pathway	
		hsa04510:Focal adhesion	
		hsa04010:MAPK signaling pathway	
		hsa05213:Endometrial cancer	
		hsa05223:Non-small cell lung cancer	
		hsa05221:Acute myeloid leukemia	
		hsa05214:Glioma	
		hsa05218:Melanoma	
		hsa05212:Pancreatic cancer	
		hsa04662:B cell receptor signaling pathway	hsa05120:Epithelial cell signaling in Helicobacter pylori infection
		hsa04370:VEGF signaling pathway	hsa04360:Axon guidance
		hsa05220:Chronic myeloid leukemia	hsa04650:Natural killer cell mediated cytotoxicity
		hsa04664:Fc epsilon RI signaling pathway	hsa04810:Regulation of actin cytoskeleton
m409		hsa05210:Colorectal cancer	hsa05211:Renal cell carcinoma
6		hsa04914:Progesterone-mediated oocyte maturation	hsa04012:ErbB signaling pathway
	C	hsa05215:Prostate cancer	hsa04666:Fc gamma R-mediated phagocytosis
		hsa04722:Neurotrophin signaling pathway	hsa04660:T cell receptor signaling pathway
		hsa04910:Insulin signaling pathway	hsa04062:Chemokine signaling pathway
		hsa05200:Pathways in cancer	hsa04510:Focal adhesion
		hsa05211:Renal cell carcinoma	hsa04010:MAPK signaling pathway
		hsa04012:ErbB signaling pathway	
		hsa04666:Fc gamma R-mediated phagocytosis	
		hsa04660:T cell receptor signaling pathway	
		hsa04062:Chemokine signaling pathway	
		hsa04510:Focal adhesion	
		hsa04010:MAPK signaling pathway	
		hsa04650:Natural killer cell mediated cytotoxicity	hsa04920:Adipocytokine signaling pathway
	C	hsa04810:Regulation of actin cytoskeleton	hsa04620:Toll-like receptor signaling pathway
		hsa05211:Renal cell carcinoma	hsa04210:Apoptosis

	carcinoma	hsa05222:Small cell lung cancer
	hsa04012:ErbB signaling pathway	hsa04150:mTOR signaling pathway
	hsa04666:Fc gamma R-mediated phagocytosis	hsa04630:Jak-STAT signaling pathway
	hsa04660:T cell receptor signaling pathway	hsa04530:Tight junction
	hsa04062:Chemokine signaling pathway	hsa05213:Endometrial cancer
	hsa04510:Focal adhesion	hsa05223:Non-small cell lung cancer
	hsa04010:MAPK signaling pathway	hsa05221:Acute myeloid leukemia
		hsa05214:Glioma
		hsa05218:Melanoma
		hsa05212:Pancreatic cancer
		hsa04662:B cell receptor signaling pathway
		hsa04370:VEGF signaling pathway
		hsa05220:Chronic myeloid leukemia
		hsa04664:Fc epsilon RI signaling pathway
		hsa05210:Colorectal cancer
		hsa04914:Progesterone-mediated oocyte maturation
		hsa05215:Prostate cancer
		hsa04722:Neurotrophin signaling pathway
		hsa04910:Insulin signaling pathway
		hsa05200:Pathways in cancer
		hsa05211:Renal cell carcinoma
		hsa04012:ErbB signaling pathway
		hsa04666:Fc gamma R-mediated phagocytosis
		hsa04660:T cell receptor signaling pathway
		hsa04062:Chemokine signaling pathway
		hsa04510:Focal adhesion
		hsa04010:MAPK signaling pathway
		hsa04150:mTOR signaling pathway
		hsa05213:Endometrial cancer
		hsa05223:Non-small cell lung cancer
		hsa05221:Acute myeloid leukemia
		hsa05214:Glioma
		hsa05211:Renal cell carcinoma
		hsa05218:Melanoma
		hsa05212:Pancreatic cancer
		hsa04662:B cell receptor signaling pathway
		hsa05220:Chronic myeloid leukemia
		hsa04370:VEGF signaling pathway
		hsa04664:Fc epsilon RI signaling pathway
		hsa05222:Small cell lung cancer

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	hsa05210:Colorectal cancer	
	hsa04914:Progesterone-mediated oocyte maturation	
	hsa04210:Apoptosis	
	hsa04012:ErbB signaling pathway	
	hsa05215:Prostate cancer	
	hsa04666:Fc gamma R-mediated phagocytosis	
	hsa04620:Toll-like receptor signaling pathway	
	hsa04660:T cell receptor signaling pathway	
	hsa04722:Neurotrophin signaling pathway	
	hsa04910:Insulin signaling pathway	
	hsa04630:Jak-STAT signaling pathway	
	hsa04062:Chemokine signaling pathway	
	hsa04510:Focal adhesion	
	hsa05200:Pathways in cancer	
	<hr/>	
	hsa04150:mTOR signaling pathway	hsa04150:mTOR signaling pathway
	hsa05213:Endometrial cancer	hsa05213:Endometrial cancer
	hsa05223:Non-small cell lung cancer	hsa05223:Non-small cell lung cancer
	hsa05221:Acute myeloid leukemia	hsa05221:Acute myeloid leukemia
	hsa05214:Glioma	hsa05214:Glioma
	hsa05211:Renal cell carcinoma	hsa05211:Renal cell carcinoma
	hsa05218:Melanoma	hsa05218:Melanoma
	hsa05212:Pancreatic cancer	hsa05212:Pancreatic cancer
	hsa04662:B cell receptor signaling pathway	hsa04662:B cell receptor signaling pathway
	hsa05220:Chronic myeloid leukemia	hsa05220:Chronic myeloid leukemia
	hsa04370:VEGF signaling pathway	hsa04370:VEGF signaling pathway
	hsa04664:Fc epsilon RI signaling pathway	hsa04664:Fc epsilon RI signaling pathway
	hsa05222:Small cell lung cancer	hsa05222:Small cell lung cancer
B	hsa05210:Colorectal cancer	hsa05210:Colorectal cancer
	hsa04914:Progesterone-mediated oocyte maturation	hsa04914:Progesterone-mediated oocyte maturation
	hsa04210:Apoptosis	hsa04210:Apoptosis
	hsa04012:ErbB signaling pathway	hsa04012:ErbB signaling pathway
	hsa05215:Prostate cancer	hsa05215:Prostate cancer
	hsa04666:Fc gamma R-mediated phagocytosis	hsa04666:Fc gamma R-mediated phagocytosis
	hsa04620:Toll-like receptor signaling pathway	hsa04620:Toll-like receptor signaling pathway
	hsa04660:T cell receptor signaling pathway	hsa04660:T cell receptor signaling pathway
	hsa04722:Neurotrophin signaling pathway	hsa04722:Neurotrophin signaling pathway
	hsa04910:Insulin signaling pathway	hsa04910:Insulin signaling pathway
	hsa04630:Jak-STAT signaling pathway	hsa04630:Jak-STAT signaling pathway
	hsa04062:Chemokine signaling pathway	hsa04062:Chemokine signaling pathway
	hsa04510:Focal adhesion	hsa04510:Focal adhesion

	hsa04510:Focal adhesion hsa05200:Pathways in cancer	hsa05200:Pathways in cancer hsa04960:Aldosterone-regulated sodium reabsorption hsa04930:Type II diabetes mellitus hsa04070:Phosphatidylinositol signaling system hsa04670:Leukocyte transendothelial migration hsa04650:Natural killer cell mediated cytotoxicity hsa04810:Regulation of actin cytoskeleton
B	hsa04150:mTOR signaling pathway hsa05213:Endometrial cancer hsa05223:Non-small cell lung cancer hsa05221:Acute myeloid leukemia hsa05214:Glioma hsa05211:Renal cell carcinoma hsa05218:Melanoma hsa05212:Pancreatic cancer hsa04662:B cell receptor signaling pathway hsa05220:Chronic myeloid leukemia hsa04370:VEGF signaling pathway hsa04664:Fc epsilon RI signaling pathway hsa05222:Small cell lung cancer hsa05210:Colorectal cancer hsa04914:Progesterone-mediated oocyte maturation hsa04210:Apoptosis hsa04012:ErbB signaling pathway hsa05215:Prostate cancer hsa04666:Fc gamma R-mediated phagocytosis hsa04620:Toll-like receptor signaling pathway hsa04660:T cell receptor signaling pathway hsa04722:Neurotrophin signaling pathway hsa04910:Insulin signaling pathway hsa04630:Jak-STAT signaling pathway hsa04062:Chemokine signaling pathway hsa04510:Focal adhesion	hsa04530:Tight junction hsa04010:MAPK signaling pathway hsa04920:Adipocytokine signaling pathway hsa04150:mTOR signaling pathway hsa05213:Endometrial cancer hsa05223:Non-small cell lung cancer hsa05221:Acute myeloid leukemia hsa05214:Glioma hsa05211:Renal cell carcinoma hsa05218:Melanoma hsa05212:Pancreatic cancer hsa04662:B cell receptor signaling pathway hsa05220:Chronic myeloid leukemia hsa04370:VEGF signaling pathway hsa04664:Fc epsilon RI signaling pathway hsa05222:Small cell lung cancer hsa05210:Colorectal cancer hsa04914:Progesterone-mediated oocyte maturation hsa04210:Apoptosis hsa04012:ErbB signaling pathway hsa05215:Prostate cancer hsa04666:Fc gamma R-mediated phagocytosis hsa04620:Toll-like receptor signaling pathway hsa04660:T cell receptor signaling pathway hsa04722:Neurotrophin signaling pathway hsa04910:Insulin signaling pathway hsa04630:Jak-STAT signaling

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	hsa05221:Acute myeloid leukemia	
	hsa05214:Glioma	
	hsa05211:Renal cell carcinoma	
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^a Cross-talk types are *A*) three vertices of a motif in one pathway; *B*) three vertices of a motif in two pathways connected by one edge and *C*) three vertices of a motif in two pathways connected by two edges.

^b There is no pathway for the molecule in the KEGG database at present.