

Functional-Network-based Gene Set Analysis using Gene-Ontology: Supplementary Table S2

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Table S2. Breast Cancer Data - Further Results

Pathway	absM	GANPA	GOG ^{IEA} _{0,3}	GOC _{0,3}	GOG ^{IEA} _{0,5}	GOG _{0,5}	GOG ^{IEA} _{0,7}	GOG _{0,9}
syn. di/tri-phosph. metabolism nts	1,23,7 4,81,6	4,12,14 6,54,7	1,25,7 2,72,5	2,22,6 3,64,4	1,22,5 2,70,4	1,18,5 2,63,3	1,27,6 3,56,10	1,24,7 4,78,10
focal adhesion	8,25,54	12,29,59	8,23,78	8,24,70	8,25,85	8,23,46	5,24,37	6,21,48
pathways in cancer	14,17,37	14,18,30	15,18,35	17,21,31	16,19,33	19,20,36	21,18,24	19,19,40
AGR	20,18,1	33,30,1	13,12,1	30,29,2	15,23,1	21,34,2	37,80,1	20,18,1
melanoma	27,152,101	25,96,77	26,156,93	46,184,109	20,129,90	40,158,114	17,69,35	16,115,80
acute myeloid leukemia	28,28,57	47,42,62	19,26,48	32,28,59	41,36,70	49,42,111	27,30,18	26,29,60
pancreatic cancer	30,39,85	34,36,48	18,37,86	21,33,82	28,56,58	34,78,53	36,67,39	34,39,76
G2/M transition	38,30,90	31,32,58	41,38,84	35,30,81	39,33,78	37,27,81	34,15,108	36,30,89
prostate cancer	39,12,12	37,19,8	33,9,10	49,14,13	46,14,7	54,22,9	62,19,2	45,5,9
p53 signaling	40,9,24	30,5,60	43,10,26	42,5,48	40,4,39	58,8,63	39,9,22	39,9,22
hemostasis	41,100,50	56,102,45	37,100,60	40,100,60	37,97,49	11,77,40	28,95,48	37,90,36
axon guidance	48,8,11	61,9,4	61,4,14	53,4,9	55,16,8	72,17,11	51,8,5	50,10,11
PDGF	50,96,114	21,58,81	59,95,117	55,93,128	42,88,80	47,114,107	44,7,128	64,114,125
cell cycle	55,22,80	35,17,106	53,24,83	50,17,84	52,30,68	56,29,59	60,72,12	55,20,86
renal cell carcinoma	71,55,10	93,55,10	75,52,29	76,69,29	61,72,31	87,94,22	58,78,71	85,56,8
aldo. reg. Na reabs.	76,163,124	90,77,109	68,194,153	67,198,146	66,161,190	63,97,132	58,78,71	90,171,130
APC	80,53,22	65,48,18	77,66,19	72,57,17	72,55,15	64,53,14	30,9,57	82,51,20
reg. actin cyto.	84,87,71	77,61,84	70,77,101	82,98,90	70,86,108	70,80,99	65,90,53	75,71,59
down strm. sig. trans.	87,102,53	53,60,54	91,96,42	90,92,58	87,92,45	96,98,64	56,51,25	70,88,39
cell surface	90,58,73	180,80,69	85,67,76	80,68,74	79,58,64	62,31,34	113,107,62	92,58,71
cdc20	92,113,15	81,111,12	94,120,13	92,111,11	89,110,12	75,103,10	43,47,33	91,111,15
longevity	109,154,87	73,112,55	159,147,123	166,141,115	111,148,56	114,152,37	48,76,72	108,149,87
glioma	111,151,77	74,64,37	119,141,85	132,139,77	112,115,60	103,116,58	83,98,27	104,144,66
# cons.	11	14	11	12	14	13	17	11

Pathways deemed significant at q -value threshold 0.15, and have F_{norm} ranked above 80 in all three data sets by at least one method are listed. The rankings of the pathway obtained from the three breast cancer data sets are recorded. Rankings above 80 across all three data sets are boldfaced. GOGANPA^{IEA} has identified the most number of conserved pathways across the three data sets. Abbreviation: syn. di/tri-phosph.: synthesis and interconversion of nucleotide di and triphosphates; metabolism nts.: metabolism of nucleotides; aldo. reg. Na. reabs.: aldosterone regulated sodium reabsorption; APC: regulation of APC/C activators between G1/S and early anaphase; reg. actin cyto.: regulation of actin cytoskeleton; down strm. sig. trans.: down stream signal transduction; CDC20: Cdc20 Phospho-APC/C mediated degradation of Cyclin A. # cons.: number of conserved pathways.