

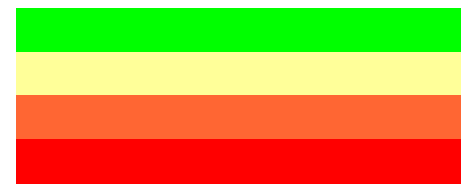
Supplementary_Table_S1

Oncogenic linear pathway (initial gene -> target gene)	Cancer type (KEGG Pathway code)	Oncogenic linear pathway size (number of interactions)	Subnetwork size (number of interactions)	Recall* (%)
PTEN -> TP53	Prostate cancer (hsa5215)	3	275	100
PTEN -> NFKB1	Prostate cancer (hsa5215)	4	411	100
PTEN -> LEF1	Prostate cancer (hsa5215)	4	2353	100
PDGFB -> MTOR	Glioma (hsa5214)	4	2652	100
NRAS -> MAPK3	Melanoma (hsa5218)	3	13	100
NRAS -> MAPK1	Melanoma (hsa5218)	3	164	100
KRAS -> RPS6KB1	Acute myeloid leukemia (hsa5221)	4	10	100
KRAS -> NFKB1	Pancreatic cancer (hsa5212)	4	389	100
KRAS -> IKBKB	Acute myeloid leukemia (hsa5221)	3	11	100
KRAS -> ELK1	Endometrial cancer (hsa5213)	4	577	100
KRAS -> EIF4EBP1	Acute myeloid leukemia (hsa5221)	4	15	100
KRAS -> CCND1	Colorectal cancer (hsa5210)	5	134	100
KRAS -> BCL2L1	Pancreatic cancer (hsa5212)	4	1203	100
KRAS -> BAD	Non-small cell lung cancer (hsa5223)	3	23	100
KIT -> RPS6KB1	Acute myeloid leukemia (hsa5221)	4	605	100
KIT -> MAPK3	Acute myeloid leukemia (hsa5221)	6	2686	100
KIT -> IKBKB	Acute myeloid leukemia (hsa5221)	3	1259	100
KIT -> EIF4EBP1	Acute myeloid leukemia (hsa5221)	4	3051	100
KIT -> BAD	Acute myeloid leukemia (hsa5221)	3	182	100
HRAS -> MAPK3	Bladder cancer (hsa5219)	3	3273	100
HRAS -> MAPK1	Bladder cancer (hsa5219)	3	35	100
FLT3 -> RPS6KB1	Acute myeloid leukemia (hsa5221)	4	678	100
FLT3 -> IKBKB	Acute myeloid leukemia (hsa5221)	3	1729	100
ERBB2 -> VEGFA	Pancreatic cancer (hsa5212)	3	24	100
EGFR -> MTOR	Glioma (hsa5214)	3	1202	100
CDKN2A -> E2F3	Glioma (hsa5214)	6	440	100
CDKN2A -> E2F2	Glioma (hsa5214)	6	885	100
CDKN2A -> E2F1	Glioma (hsa5214)	6	844	100
CDKN1B -> E2F3	Prostate cancer (hsa5215)	3	2888	100
CDKN1B -> E2F2	Prostate cancer (hsa5215)	3	487	100
CDKN1B -> E2F1	Prostate cancer (hsa5215)	3	306	100
ABL1 -> CDKN1B	Chronic myeloid leukemia (hsa5220)	4	1820	100
FLT3 -> MAPK3	Acute myeloid leukemia (hsa5221)	6	2199	83
ABL1 -> MAPK3	Chronic myeloid leukemia (hsa5220)	5	1099	80
PDGFB -> MAPK3	Glioma (hsa5214)	8	1548	75
PDGFB -> MAPK1	Glioma (hsa5214)	8	759	75
PDGFA -> MAPK3	Glioma (hsa5214)	8	2203	75
FLT3 -> EIF4EBP1	Acute myeloid leukemia (hsa5221)	4	169	75
EGFR -> MAPK3	Glioma (hsa5214)	7	3005	71
PDGFA -> MTOR	Glioma (hsa5214)	4	17	50
KRAS -> MYC	Colorectal cancer (hsa5210)	4	10	50
FLT3 -> BAD	Acute myeloid leukemia (hsa5221)	7	12	43
PTEN -> CCND1	Small cell lung cancer (hsa5222)	5	473	40

Supplementary_Table_S1

PTEN -> BIRC3	Small cell lung cancer (hsa5222)	5	500	40
MET -> JUN	Renal cell carcinoma (hsa5211)	7	116	29
EGFR -> MAPK1	Glioma (hsa5214)	7	988	29
ABL1 -> TP53	Chronic myeloid leukemia (hsa5220)	5	17	20
ABL1 -> MAPK1	Chronic myeloid leukemia (hsa5220)	5	20	20
KIT -> MAPK1	Acute myeloid leukemia (hsa5221)	6	48	17
FLT3 -> MAPK1	Acute myeloid leukemia (hsa5221)	6	30	17
ABL1 -> NFKB1	Chronic myeloid leukemia (hsa5220)	6	18	17
PDGFA -> MAPK1	Glioma (hsa5214)	8	35	13

* Ratio between the number of interactions of the OLP in the subnetwork and the actual number of interactions in OLP



Recall = 100%
 100% > Recall > 49%
 50% > Recall > 25%
 Recall < 25%