

Supporting Information for

CanProVar 2.0: an Updated Database of Human Cancer Proteome Variation

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Supplementary Figures

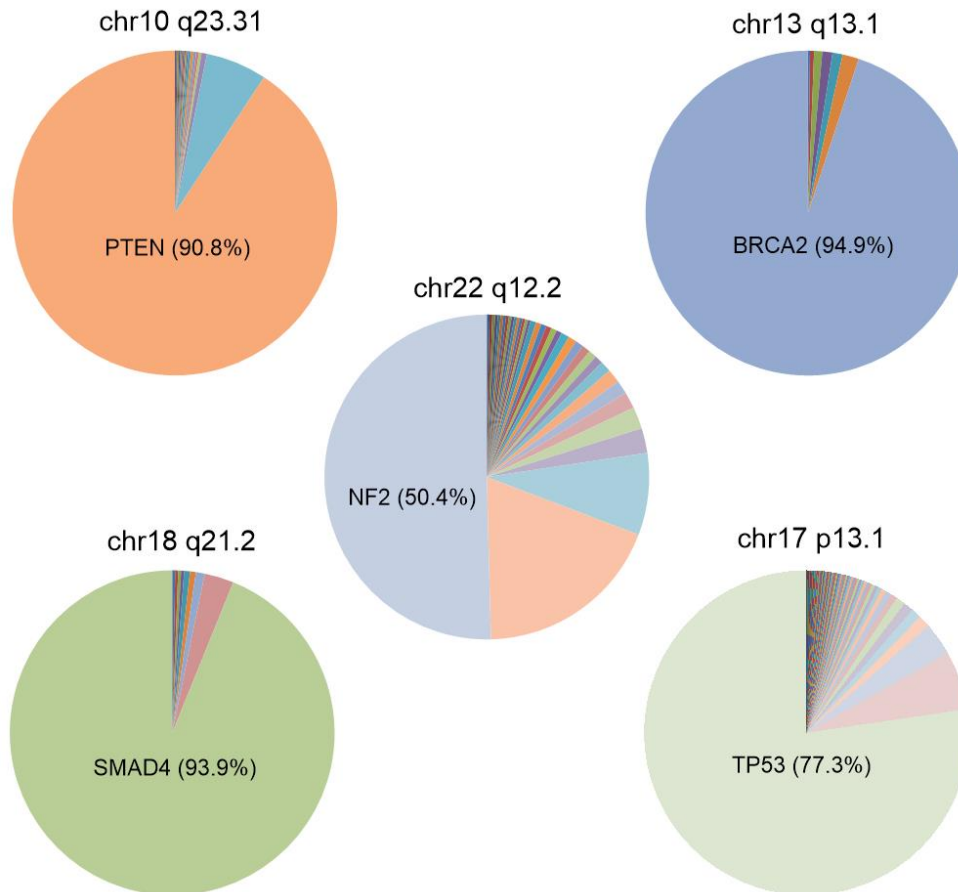


Figure S1. Hot chromosome locations containing one or more significant peaks of variations. The distribution of mutations across human chromosomal bands was investigated. A few hot chromosome locations containing one or more significant peaks of variations were found. But more than half of the variations contained in each peak can be explained by very few well-known cancer genes.

Supplementary Tables

Table S1. 167 mutated proteins with high ‘crVARs : ncrVARs’ ratios in cancers

gene name	protein ID	crVARs count	ncrVARs count	ratio (crVARs : ncrVARs)
PTEN	ENSP00000361021	375	1	375
SMARCB1	ENSP00000263121	50	1	50
TP53	ENSP00000269305	459	11	41.73
CEBPA	ENSP00000427514	74	2	37
RUNX1	ENSP00000300305	70	2	35
SMAD4	ENSP00000381452	114	4	28.5
SMAD4	ENSP00000341551	113	4	28.25
PIK3CA	ENSP00000263967	162	6	27
TP53	ENSP00000391478	384	15	25.6
DNMT3A	ENSP00000264709	70	3	23.33
DNMT3A	ENSP00000324375	70	3	23.33
NF2	ENSP00000344666	186	11	16.91
MAP2K4	ENSP00000262445	14	1	14
EZH2	ENSP00000320147	53	4	13.25
VHL	ENSP00000256474	253	21	12.05
PAK3	ENSP00000361077	11	1	11
OGT	ENSP00000362824	11	1	11
OGT	ENSP00000362805	11	1	11
STK11	ENSP00000324856	53	5	10.6
KCNA6	ENSP00000280684	10	1	10
CDC73	ENSP00000356405	26	3	8.67
MEN1	ENSP00000308975	103	12	8.58
TET2	ENSP00000369351	273	33	8.27
GRM3	ENSP00000355316	33	4	8.25
PRMT8	ENSP00000372067	8	1	8
FBXW7	ENSP00000281708	79	11	7.18
PRKAR1A	ENSP00000351410	7	1	7
CPSF2	ENSP00000298875	7	1	7
PRKAR1A	ENSP00000376474	7	1	7
PRKAR1A	ENSP00000376475	7	1	7
PRKAR1A	ENSP00000445625	7	1	7
NF1	ENSP00000351015	149	22	6.77
TP53	ENSP00000410739	65	10	6.5
MEF2C	ENSP00000426665	13	2	6.5
MEF2C	ENSP00000396219	13	2	6.5

SMARCA4	ENSP00000343896	44	7	6.29
PTCH1	ENSP00000332353	160	26	6.15
DDIT3	ENSP00000340671	6	1	6
NOVA1	ENSP00000438875	6	1	6
CNR1	ENSP00000358511	6	1	6
SMARCA4	ENSP00000395654	41	7	5.86
PIK3R1	ENSP00000428056	34	6	5.67
PIK3R1	ENSP00000429277	34	6	5.67
PIK3R1	ENSP00000274335	34	6	5.67
TNFAIP3	ENSP00000237289	51	9	5.67
CDH1	ENSP00000261769	97	18	5.39
SF3B1	ENSP00000335321	32	6	5.33
TUBA4A	ENSP00000375938	5	1	5
KCNA4	ENSP00000328511	10	2	5
MPPED2	ENSP00000350833	5	1	5
PAK3	ENSP00000401982	5	1	5
TMEFF2	ENSP00000272771	5	1	5
PAK3	ENSP00000410853	5	1	5
MAP2K4	ENSP00000410402	5	1	5
PPP2R1A	ENSP00000324804	15	3	5
PPBP	ENSP00000296028	5	1	5
KHDRBS3	ENSP00000348108	5	1	5
P2RY10	ENSP00000443138	5	1	5
HOXC9	ENSP00000302836	5	1	5
BAP1	ENSP00000417132	35	7	5
FBXO28	ENSP00000355827	5	1	5
TUBA4A	ENSP00000248437	5	1	5
DDIT3	ENSP00000447188	5	1	5
HIST1H4H	ENSP00000366956	5	1	5
P2RY10	ENSP00000171757	5	1	5
PBRM1	ENSP00000338302	70	15	4.67
CYLD	ENSP00000308928	13	3	4.33
RUNX1T1	ENSP00000353504	13	3	4.33
ABL1	ENSP00000323315	75	18	4.17
CBLN4	ENSP00000064571	4	1	4
HIST2H2BE	ENSP00000358151	4	1	4
CYLD	ENSP00000392025	12	3	4
EBF3	ENSP00000357637	4	1	4
EIF2C3	ENSP00000362287	4	1	4
PHOX2B	ENSP00000226382	4	1	4
STK38L	ENSP00000373684	4	1	4

MAPK8	ENSP00000363297	4	1	4
KCNJ6	ENSP00000383330	4	1	4
E2F5	ENSP00000398124	4	1	4
KCNV1	ENSP00000435954	4	1	4
MAPK8	ENSP00000363304	4	1	4
KCNV1	ENSP00000297404	4	1	4
KIF3A	ENSP00000368020	4	1	4
PAK3	ENSP00000262836	4	1	4
MOSPD1	ENSP00000359819	4	1	4
SCAI	ENSP00000362650	4	1	4
PIK3CA	ENSP00000417479	4	1	4
DNAJC25	ENSP00000320650	4	1	4
USF1	ENSP00000356999	4	1	4
KEAP1	ENSP00000377245	19	5	3.8
BCL10	ENSP00000359612	15	4	3.75
RUNX1T1	ENSP00000265814	15	4	3.75
BCL10	ENSP00000271015	15	4	3.75
FTSJD2	ENSP00000362550	7	2	3.5
GNA11	ENSP00000078429	7	2	3.5
RORB	ENSP00000366093	7	2	3.5
MMP16	ENSP00000286614	14	4	3.5
KCNJ3	ENSP00000295101	7	2	3.5
FGFR2	ENSP00000351276	53	16	3.31
CDKN2A	ENSP00000307101	36	11	3.27
PAX5	ENSP00000350844	16	5	3.2
MSH2	ENSP00000233146	107	34	3.15
CBL	ENSP00000264033	44	14	3.14
MLH1	ENSP00000231790	121	40	3.03
PIAS1	ENSP00000249636	3	1	3
EIF3D	ENSP00000216190	3	1	3
CPSF3	ENSP00000238112	6	2	3
KCNJ9	ENSP00000357067	3	1	3
THAP10	ENSP00000249861	3	1	3
GPR26	ENSP00000284674	3	1	3
MAPK14	ENSP00000229794	3	1	3
MAPK14	ENSP00000229795	3	1	3
DCUN1D3	ENSP00000319482	3	1	3
CLDN11	ENSP00000064724	3	1	3
DIRAS3	ENSP00000378627	3	1	3
CYTH2	ENSP00000391648	3	1	3
MAPK8	ENSP00000363294	3	1	3

LYPLA2	ENSP00000363638	3	1	3
COPS7B	ENSP00000272995	3	1	3
CDK8	ENSP00000370938	3	1	3
CYCS	ENSP00000387279	3	1	3
DIRAS3	ENSP00000360020	3	1	3
GPR85	ENSP00000297146	3	1	3
HIST1H3H	ENSP00000358160	3	1	3
INSIG2	ENSP00000245787	3	1	3
U2SURP	ENSP00000381027	3	1	3
SETDB1	ENSP00000409379	3	1	3
GTF2B	ENSP00000359531	3	1	3
VBP1	ENSP00000286428	3	1	3
IL1B	ENSP00000263341	3	1	3
FAM127B	ENSP00000375267	3	1	3
TNPO2	ENSP00000389648	3	1	3
ARMCX3	ENSP00000454483	3	1	3
DCLK1	ENSP00000255448	6	2	3
PHF23	ENSP00000322579	3	1	3
RBBP7	ENSP00000369427	3	1	3
RGS7BP	ENSP00000334851	3	1	3
CBFB	ENSP00000290858	3	1	3
CYCS	ENSP00000307786	3	1	3
TNPO2	ENSP00000349321	3	1	3
SNRPA	ENSP00000243563	3	1	3
COPS7B	ENSP00000386567	3	1	3
RHOB	ENSP00000272233	3	1	3
RALA	ENSP00000005257	3	1	3
ZIC1	ENSP00000282928	6	2	3
TADA3	ENSP00000307684	3	1	3
RAB31	ENSP00000304565	3	1	3
HIST1H2AJ	ENSP00000328484	3	1	3
GULP1	ENSP00000352047	3	1	3
FBXO21	ENSP00000328187	3	1	3
FOXG1	ENSP00000371975	3	1	3
MAPK8	ENSP00000353483	3	1	3
CYCS	ENSP00000386270	3	1	3
AKT3	ENSP00000355497	3	1	3
NFIX	ENSP00000353219	3	1	3
PAK3	ENSP00000361080	3	1	3
ARMCX3	ENSP00000340672	3	1	3
NRXN3	ENSP00000394426	6	2	3

TADA3	ENSP00000393471	3	1	3
EBF2	ENSP00000430241	6	2	3
ARMCX3	ENSP00000439032	3	1	3
KCNA6	ENSP00000408321	3	1	3
BAI3	ENSP00000359630	51	17	3
ST3GAL3	ENSP00000355341	3	1	3
FBXW7	ENSP00000263981	18	6	3
RBBP5	ENSP00000264515	3	1	3
RBM39	ENSP00000253363	3	1	3