

Tumor suppressor and DNA damage response panel 3 (pending; some attrition expected, depending on generating successful antibodies)

Gene Symbol	Target protein name	UniProt ID (& link)	Modification*
ADA	adenosine deaminase	P00813	
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BAD	BCL2-associated agonist of cell death	Q92934	
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BARD1	BRCA1 associated RING domain 1	Q99728	
BAX	BCL2-associated X protein	Q07812	
BAX	BCL2-associated X protein	Q07812	
BCL10	B-cell CLL/lymphoma 10	O95999	
BCL2	B-cell CLL/lymphoma 2	P10415	
BCL2L1	BCL2 Like 1;Protein Phosphatase 1, Regulatory Subunit 52	Q07817	
BIRC5	baculoviral IAP repeat-containing 5 (survivin)	Q15392	
BIRC5	baculoviral IAP repeat-containing 5 (survivin)	O15392	
BRCA1	Breast cancer type 1 susceptibility protein	P38398	
BRCA2	breast cancer 2, early onset	P51587	
BRCA2	breast cancer 2, early onset	P51587	
BRCA2	breast cancer 2, early onset	P51587	
BRCA2	breast cancer 2, early onset	P51587	
BRCA2	breast cancer 2, early onset	P51587	
BRCA2	breast cancer 2, early onset	P51587	
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CDK12	cyclin dependent kinase 12	Q9N9V4	
CDK12	cyclin dependent kinase 12	Q9N9V4	
CDKN1A	cyclin-dependent kinase inhibitor 1A (p21, Cip1)	P38936	
CDKN1A	cyclin-dependent kinase inhibitor 1A (p21, Cip1)	P38936	
CDKN1A	cyclin-dependent kinase inhibitor 1A (p21, Cip1)	P38936	
DCTN2	dynactin 2 (p50)	Q13561	
DDX11	DEAD/H-box helicase 11	Q96FC9	
DDX11	DEAD/H-box helicase 11	Q96FC9	
DDX11	DEAD/H-box helicase 11	Q96FC9	
DYNLL1	Dynein light chain 1, cytoplasmic	P63167	
ERCC1	DNA excision repair protein ERCC-1	P07992	
ERCC2	General transcription and DNA repair factor IIH helicase subunit XPD	P18074	
ERCC3	General transcription and DNA repair factor IIH helicase subunit XPB	P19447	
ERCC4	DNA repair endonuclease XPF	Q92889	
ERCC6	DNA excision repair protein ERCC-6	Q03468	
ERCC6	DNA excision repair protein ERCC-6	Q03468	
FADD	FAS-associated death domain protein	Q13158	
FADD	FAS-associated death domain protein	Q13158	
FADD	FAS-associated death domain protein	Q13158	
FANCC	Fanconi anemia, complementation group C	Q00597	
FANCI	Fanconi anemia, complementation group I	Q9NVI1	
FAS	Fas (TNF receptor superfamily, member 6)	P25445	
FAS	Fas (TNF receptor superfamily, member 6)	P25445	pY291
FAS	Fas (TNF receptor superfamily, member 6)	P25445	
FAS	Fas (TNF receptor superfamily, member 6)	P25445	
FOXO1	forkhead box O1	Q12778	
FOXO3	forkhead box O3	Q43524	pS253
FOXO3	forkhead box O3	Q43524	pS253
GIT2	GIT ArfGAP 2	Q14161	
GIT2	GIT ArfGAP 2	Q14161	
GIT2	GIT ArfGAP 2	Q14161	
GIT2	GIT ArfGAP 2	Q14161	
HMGB1	high mobility group box 1	P09429	
HMGB1	high mobility group box 1	P09429	pS35
HMGB1	high mobility group box 1	P09429	pS39
HMGB1	high mobility group box 1	P09429	
HUS1	HUS1 checkpoint clamp component	Q60921	
HUS1	HUS1 checkpoint clamp component	Q60921	
LIG1	ligase I, DNA, ATP-dependent	P18858	
LIG3	LIG3alpha	P49916	

*blanks mean the assay detects the non-modified peptide sequence

LIG4	DNA ligase 4	P49917	
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MCL1	Induced myeloid leukemia cell differentiation protein Mcl-1	Q07820	
MGMT	O-6-methylguanine-DNA methyltransferase	P16455	
MLH1	DNA mismatch repair protein Mlh1	P40692	
MSH2	mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli)	P43246	
MSH3	DNA mismatch repair protein Msh3	P20585	
MSH3	DNA mismatch repair protein Msh3	P20585	
MSH3	DNA mismatch repair protein Msh3	P20585	
MSH6	mutS homolog 6 (E. coli)	P52701	
MUC1	Mucin-1	P15941	
MUC1	Mucin-1	P15941	
MUTYH	Adenine DNA glycosylase	Q9UIF7	
NIPBL	NIPBL, cohesin loading factor	Q6KC79	
NUDT16L1	nudix hydrolase 16 like 1	Q9BRJ7	
PALB2	Partner and localizer of BRCA2	Q86YC2	
PARP2	Poly [ADP-ribose] polymerase 2	Q9UGN5	
PAXIP1	PAX-interacting protein 1	Q6ZW49	
PDIA3	protein disulfide isomerase family A, member 3	P30101	
PDIA3	protein disulfide isomerase family A, member 3	P30101	
PDIA3	protein disulfide isomerase family A, member 3	P30101	
PMS1	PMS1 protein homolog 1	P54277	
PMS2	Mismatch repair endonuclease PMS2	P54278	
PMS2	Mismatch repair endonuclease PMS2	P54278	
POLB	DNA polymerase beta	P06746	
POLB	DNA polymerase beta	P06746	
POLB	DNA polymerase beta	P06746	
POLD1	DNA polymerase delta catalytic subunit	P28340	
POLE	polymerase (DNA directed), epsilon	Q07864	
POLE	polymerase (DNA directed), epsilon	Q07864	
POLE3	DNA polymerase epsilon subunit 3	Q9NRF9	
POLE3	DNA polymerase epsilon subunit 3	Q9NRF9	
POLM	polymerase (DNA directed), mu	Q9NP87	
PRDX2	Peroxisredoxin 2	P32119	
PRDX2	Peroxisredoxin 2	P32119	
PRDX4	Peroxisredoxin 4	Q13162	
PRDX4	Peroxisredoxin 4	Q13162	
PRKDC	DNA-dependent protein kinase catalytic subunit	P78527	pT2609
PRKDC	DNA-dependent protein kinase catalytic subunit	P78527	
PTEN	phosphatase and tensin homolog (mutated in multiple advanced cancers 1)	P60484	
PTEN	phosphatase and tensin homolog (mutated in multiple advanced cancers 1)	P60484	
PTEN	phosphatase and tensin homolog (mutated in multiple advanced cancers 1)	P60484	
PTEN	phosphatase and tensin homolog (mutated in multiple advanced cancers 1)	P60484	
RAD1	RAD1 checkpoint DNA exonuclease	Q60671	
RAD51	DNA repair protein RAD51 homolog 1	Q06609	
RAD51	DNA repair protein RAD51 homolog 1	Q06609	
RECQL	ATP-dependent DNA helicase Q1	P46063	
RECQL	ATP-dependent DNA helicase Q1	P46063	
RECQL	ATP-dependent DNA helicase Q1	P46063	
RNASEH2A	ribonuclease H2 subunit A	Q75792	
RNASEH2A	ribonuclease H2 subunit A	Q75792	
RNASEH2A	ribonuclease H2 subunit A	Q75792	
RNF168	ring finger protein 168	Q81YW5	
RPA1	replication protein A1	P27694	
RPA1	replication protein A1	P27694	
SLFN11	Schlafen family member 11	Q7Z7L1	
TCOF1	Treacle protein	Q13428	
TCOF1	Treacle protein	Q13428	
TGFB1	transforming growth factor, beta 1	P01137	
TIPRL	TOR signaling pathway regulator	Q75663	
TNF10	Tumor necrosis factor ligand superfamily member 10	P50591	
TNF10	Tumor necrosis factor ligand superfamily member 10	P50591	
TOP1	topoisomerase (DNA) I	P11387	
TP53	Cellular tumor antigen p53	P04637	
TP53	Cellular tumor antigen p53	P04637	

TP53BP1	TP53-binding protein 1	Q12888	
TP53BP1	TP53-binding protein 1	Q12888	
TP53BP1	TP53-binding protein 1	Q12888	
TXN	Thioredoxin	P10599	
TXN	Thioredoxin	P10599	
TXN	Thioredoxin	P10599	
XRCC1	X-ray repair complementing defective repair in Chinese hamster cells 1	P18887	
XRCC5	X-ray repair complementing defective repair in Chinese hamster cells 5 (double-strand-break rejoining)	P13010	
XRCC6	X-ray repair cross-complementing protein 6	P12956	
XRCC6	X-ray repair cross-complementing protein 6	P12956	
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