

## Tumor suppressor and DNA damage response panel 3 (Pending Validation)

(74 analytes)

Gene Symbol	Target protein name	UniProt ID (& link)	Modification*
ADA	adenosine deaminase	<a href="#">P00813</a>	
BAD	BCL2-associated agonist of cell death	<a href="#">Q92934</a>	
BAX	BCL2-associated X protein	<a href="#">Q07812</a>	
BCL10	B-cell CLL/lymphoma 10	<a href="#">O95999</a>	
BIRC5	baculoviral IAP repeat-containing 5 (survivin)	<a href="#">O15392</a>	
BIRC5	baculoviral IAP repeat-containing 5 (survivin)	<a href="#">O15392</a>	
BRCA1	Breast cancer type 1 susceptibility protein	<a href="#">P38398</a>	
BRCA2	breast cancer 2, early onset	<a href="#">P51587</a>	
CDK12	Cyclin-dependent kinase 12	<a href="#">Q9NYV4</a>	
CDK12	Cyclin-dependent kinase 12	<a href="#">Q9NYV4</a>	
CGAS	Cyclic GMP-AMP synthase	<a href="#">Q8N884</a>	
DDX11	ATP-dependent DNA helicase DDX11	<a href="#">Q96FC9</a>	
ERCC1	excision repair cross-complementing rodent repair deficiency, complementation group 1 (includes overlapping antisense sequence)	<a href="#">P07992</a>	
ERCC2	excision repair cross-complementing rodent repair deficiency, complementation group 2	<a href="#">P18074</a>	
ERCC3	excision repair cross-complementing rodent repair deficiency, complementation group 3 (xeroderma pigmentosum group B complementing)	<a href="#">P19447</a>	
ERCC4	DNA repair endonuclease XPF	<a href="#">Q92889</a>	
ERCC6	excision repair cross-complementing rodent repair deficiency, complementation group 6	<a href="#">Q03468</a>	
ERCC6	excision repair cross-complementing rodent repair deficiency, complementation group 6	<a href="#">Q03468</a>	
FAS	Fas (TNF receptor superfamily, member 6)	<a href="#">P25445</a>	
FAS	Fas (TNF receptor superfamily, member 6)	<a href="#">P25445</a>	
FH	Fumarate hydratase, mitochondrial	<a href="#">P07954</a>	
FOXO1	forkhead box O1	<a href="#">Q12778</a>	
FOXO3	forkhead box O3	<a href="#">Q43524</a>	pS253
GAPDH	Glyceraldehyde-3-phosphate dehydrogenase	<a href="#">P04406</a>	
GIT2	ARF GTPase-activating protein GIT2	<a href="#">Q14161</a>	
HUS1	HUS1 checkpoint clamp component	<a href="#">Q60921</a>	
LIG1	ligase I, DNA, ATP-dependent	<a href="#">P18858</a>	
LIG3	LIG3alpha	<a href="#">P49916</a>	
LIG4	DNA ligase 4	<a href="#">P49917</a>	
MCL1	myeloid cell leukemia sequence 1 (BCL2-related)	<a href="#">Q07820</a>	
MGMT	O-6-methylguanine-DNA methyltransferase	<a href="#">P16455</a>	
MLH1	DNA mismatch repair protein Mlh1	<a href="#">P40692</a>	
MRE11A	Double-strand break repair protein MRE11	<a href="#">P49959</a>	
MSH2	mutS homolog 2, colon cancer, nonpolyposis type 1 (E. coli)	<a href="#">P43246</a>	
MSH3	DNA mismatch repair protein Msh3	<a href="#">P20585</a>	
MSH6	mutS homolog 6 (E. coli)	<a href="#">P52701</a>	
MUTYH	Adenine DNA glycosylase	<a href="#">Q9UIF7</a>	
NFKB1	Nuclear factor NF-kappa-B p105 subunit	<a href="#">P19838</a>	
NIPBL	Nipped-B-like protein	<a href="#">Q6KC79</a>	
NUDT16L1	Tudor-interacting repair regulator protein	<a href="#">Q9BRJ7</a>	
PALB2	Partner and localizer of BRCA2	<a href="#">Q86YC2</a>	
PARP2	Poly [ADP-ribose] polymerase 2	<a href="#">Q9UGN5</a>	
PAXIP1	PAX interacting (with transcription-activation domain) protein 1	<a href="#">Q6ZW49</a>	
PIK3CA	Phosphatidylinositol 4,5-bisphosphate 3-kinase catalytic subunit alpha isoform	<a href="#">P42336</a>	
PMS1	PMS1 protein homolog 1	<a href="#">P54277</a>	
PMS2	Mismatch repair endonuclease PMS2	<a href="#">P54278</a>	
POLB	DNA polymerase beta	<a href="#">P06746</a>	
POLD1	DNA polymerase delta catalytic subunit	<a href="#">P28340</a>	
PTEN	phosphatase and tensin homolog (mutated in multiple advanced cancers 1)	<a href="#">P60484</a>	
PTEN	phosphatase and tensin homolog (mutated in multiple advanced cancers 1)	<a href="#">P60484</a>	
PTEN	phosphatase and tensin homolog (mutated in multiple advanced cancers 1)	<a href="#">P60484</a>	
PTEN	phosphatase and tensin homolog (mutated in multiple advanced cancers 1)	<a href="#">P60484</a>	
RAD1	RAD1 checkpoint DNA exonuclease	<a href="#">Q60671</a>	
RAD51	RAD51 homolog (RecA homolog, E. coli) (S. cerevisiae)	<a href="#">Q06609</a>	
RAD51	RAD51 homolog (RecA homolog, E. coli) (S. cerevisiae)	<a href="#">Q06609</a>	
RECQL	ATP-dependent DNA helicase Q1	<a href="#">P46063</a>	
RNASEH2A	ribonuclease H2 subunit A	<a href="#">Q75792</a>	
RNF168	ring finger protein 168	<a href="#">Q8IYW5</a>	
RPA1	replication protein A1	<a href="#">P27694</a>	

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

SDHB	Succinate dehydrogenase [ubiquinone] iron-sulfur subunit, mitochondrial	<a href="#">P21912</a>	
SLFN11	schlafen family member 11	<a href="#">Q727L1</a>	
TGFB1	transforming growth factor, beta 1	<a href="#">P01137</a>	
TIPRL	TIP41-like protein	<a href="#">O75663</a>	
TNF10	Tumor necrosis factor ligand superfamily member 10	<a href="#">P50591</a>	
TOP1	topoisomerase (DNA) I	<a href="#">P11387</a>	
TP53	Cellular tumor antigen p53	<a href="#">P04637</a>	
TP53	Cellular tumor antigen p53	<a href="#">P04637</a>	
TP53BP1	TP53-binding protein 1	<a href="#">Q12888</a>	
XRCC1	X-ray repair complementing defective repair in Chinese hamster cells 1	<a href="#">P18887</a>	
XRCC5	X-ray repair complementing defective repair in Chinese hamster cells 5 (double-strand-break rejoining)	<a href="#">P13010</a>	
XRCC6	X-ray repair cross-complementing protein 6	<a href="#">P12956</a>	
XRCC6	X-ray repair cross-complementing protein 6	<a href="#">P12956</a>	
XRCC6	X-ray repair cross-complementing protein 6	<a href="#">P12956</a>	
XRCC6	X-ray repair cross-complementing protein 6	<a href="#">P12956</a>	