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Product datasheet for TP508516

Rnf168 (NM_027355) Mouse Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Mouse ring finger protein 168 (Rnf168), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug
Species:	Mouse
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>MR208516 protein sequence Red=Cloning site Green=Tags(s) MEILLEPVTLPCNHTLCNPCFQSTVEKANLCCPFCRRRVSSWTRYHTRRNSLVNTDLWEIIQKHYAKECK LRISGQESKEIIDECQPVRRLSEPGELRREYEEEISRVEAERQASKEEENKASEEYIQRLLAEEEEEEKR QREKRRSEMEEQLRGDEELARSLSTSINSNYERNTLASPLSSRKSDPVTNKSQKKNTSKQKTFGDIQKYL SPKLKPGTALACKAELEEDICKSKETDRSDTKSPVLQDTEIEKNIPTLSPQTCLETQEQGSESSAGIPGP QLCVGDTKESLEGKVETVSTSPDDLCIVNDDGPRATVFYSNEAAVNSSSKIENEEYSVTGVPQLTGGNRV PTESRVYHLLVEEEISDRENQESVFEEVMDPCFSAKRRKIFIESSSDQEETEVNFTQKLIDLEHMLFERH KQEEQDRLLALQLQKEVDKEQMVPNRQKGSPDQYQLRTPSPPDRLLNRQRKNSKDRNSLQQTNADHSKSP RNTKGDYWEPFKNTWKDSVNGTKMPTSTQDNCNVSKSAYTV TRTRPLEQKLISEEDLAANDILDYKDDDDKV
Tag:	C-MYC/DDK
Predicted MW:	61 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C after receiving vials.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	NP_081631

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Locus ID:	70238
UniProt ID:	Q80XJ2, E9PYW4
RefSeq Size:	4468
Cytogenetics:	16 B3
RefSeq ORF:	1596
Synonyms:	3110001H15Rik
Summary:	E3 ubiquitin-protein ligase required for accumulation of repair proteins to sites of DNA damage. Acts with UBE2N/UBC13 to amplify the RNF8-dependent histone ubiquitination. Recruited to sites of DNA damage at double-strand breaks (DSBs) by binding to ubiquitinated histone H2A and H2AX and amplifies the RNF8-dependent H2A ubiquitination, promoting the formation of 'Lys-63'-linked ubiquitin conjugates. This leads to concentrate ubiquitinated histones H2A and H2AX at DNA lesions to the threshold required for recruitment of TP53BP1 and BRCA1. Also recruited at DNA interstrand cross-links (ICLs) sites and promotes accumulation of 'Lys-63'-linked ubiquitination of histones H2A and H2AX, leading to recruitment of FAAP20 and Fanconi anemia (FA) complex, followed by interstrand cross-link repair. H2A ubiquitination also mediates the ATM-dependent transcriptional silencing at regions flanking DSBs in cis, a mechanism to avoid collision between transcription and repair intermediates. Also involved in class switch recombination in immune system, via its role in regulation of DSBs repair. Following DNA damage, promotes the ubiquitination and degradation of JMJD2A/KDM4A in collaboration with RNF8, leading to unmask H4K20me2 mark and promote the recruitment of TP53BP1 at DNA damage sites. Not able to initiate 'Lys-63'-linked ubiquitination in vitro; possibly due to partial occlusion of the UBE2N/UBC13-binding region. Catalyzes monoubiquitination of 'Lys-13' and 'Lys-15' of nucleosomal histone H2A (H2AK13Ub and H2AK15Ub, respectively).[UniProtKB/Swiss-Prot Function]