

RAD18 Antibody

Purified Mouse Monoclonal Antibody

Catalog # AO2118a

Product Information

Application	WB, FC, E
Primary Accession	Q9NS91
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	2G8D12
Isotype	IgG1
Calculated MW	56223
Description	The protein encoded by this gene is highly similar to <i>S. cerevisiae</i> DNA damage repair protein Rad18. Yeast Rad18 functions through its interaction with Rad6, which is an ubiquitin-conjugating enzyme required for post-replication repair of damaged DNA. Similar to its yeast counterpart, this protein is able to interact with the human homolog of yeast Rad6 protein through a conserved ring-finger motif. Mutation of this motif results in defective replication of UV-damaged DNA and hypersensitivity to multiple mutagens.
Immunogen	Purified recombinant fragment of human RAD18 (AA: 332-430) expressed in <i>E. Coli</i> .
Formulation	Purified antibody in PBS with 0.05% sodium azide

Additional Information

Gene ID	56852
Other Names	E3 ubiquitin-protein ligase RAD18, 6.3.2., Postreplication repair protein RAD18, hHR18, hRAD18, RING finger protein 73, RAD18, RNF73
Dilution	WB~~1/500 - 1/2000 FC~~1/200 - 1/400 E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	RAD18 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	RAD18
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Synonyms

RNF73

Function

E3 ubiquitin-protein ligase involved in postreplication repair of UV-damaged DNA. Postreplication repair functions in gap- filling of a daughter strand on replication of damaged DNA. Associates to the E2 ubiquitin conjugating enzyme UBE2B to form the UBE2B-RAD18 ubiquitin ligase complex involved in mono-ubiquitination of DNA- associated PCNA on 'Lys-164'. Has ssDNA binding activity.

Cellular Location

Nucleus. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Note=Associates with chromatin (PubMed:25931565). Colocalizes with SLF1 in the nucleus and to centrosomes (PubMed:15632077). Relocalizes with SLF1 to nuclear foci in response to DNA damage (PubMed:22036607). Accumulates with the SLF1- SLF2 and SMC5-SMC6 complexes at replication-coupled DNA interstrand repair and DNA double-strand breaks (DSBs) sites on chromatin in a ubiquitin-dependent manner (PubMed:25931565)

References

1.Nucleic Acids Res. 2013 Feb 1;41(4):2296-312.2.J Exp Clin Cancer Res. 2009 Jul 25;28:106.

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