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RAD18 Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a partial recombinant RAD18.
Catalog # AT3545a

Product Information

Application	WB, IHC, IF, E
Primary Accession	Q9NS91
Other Accession	NM_020165
Reactivity	Human, Rat
Host	Mouse
Clonality	monoclonal
Isotype	IgG2b Kappa
Clone Names	3H7
Calculated MW	56223

Additional Information

Gene ID	56852
Other Names	E3 ubiquitin-protein ligase RAD18, 632-, Postreplication repair protein RAD18, hHR18, hRAD18, RING finger protein 73, RAD18, RNF73
Target/Specificity	RAD18 (NP_064550, 332 a.a. ~ 430 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000 IHC~~1:100~500 IF~~1:50~200 E~~N/A
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	RAD18 Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

Background

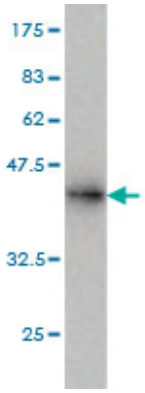
The protein encoded by this gene is highly similar to S. cerevisiae DNA damage repair protein Rad18. Yeast Rad18 functions through its interaction with Rad6, which is an ubiquitin-conjugating enzyme required for post-replication repair of damaged DNA. Similar to its yeast counterpart, this protein is 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.

References

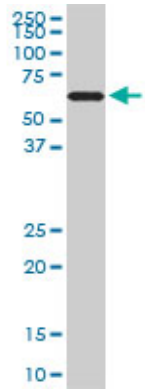
1.The ubiquitin specific protease USP34 promotes ubiquitin signaling at DNA double-strand breaks.Sy SM,

Jiang J, O WS, Deng Y, Huen MSNucleic Acids Res. 2013 Jul 17.2.Phosphorylation of human INO80 is involved in DNA damage toleranceKato D, Waki M, Umezawa M, Aoki Y, Utsugi T, Ohtsu M, Murakami Y.Biochem Biophys Res Commun. 2011 Dec 7. [Epub ahead of print]3.Elevated expression of Rad18 regulates melanoma cell proliferation.Wong RP, Aguissa-Toure AH, Wani AA, Khosravi S, Martinka M, Martinka M, Li G.Pigment Cell Melanoma Res. 2011 Dec 6. doi: 10.1111/j.1755-148X.2011.00948.x. [Epub ahead of print]4.NBS1 Recruits RAD18 via a RAD6-like Domain and Regulates Pol ?b-Dependent Translesion DNA Synthesis.Yanagihara H, Kobayashi J, Tateishi S, Kato A, Matsuura S, Tauchi H, Yamada K, Takezawa J, Sugasawa K, Masutani C, Hanaoka F, Weemaes CM, Mori T, Zou L, Komatsu K.Mol Cell. 2011 Sep 2;43(5):788-97.5.Tumour suppressor ING1b maintains genomic stability upon replication stress.Wong RP, Lin H, Khosravi S, Piche B, Jafarnejad SM, Chen DW, Li G.Nucleic Acids Res. 2011 Jan 11. [Epub ahead of print]6.WRN participates in translesion synthesis pathway through interaction with NBS1.Kobayashi J, Okui M, Asaithamby A, Burma S, Chen BP, Tanimoto K, Matsuura S, Komatsu K, Chen DJ.Mech Ageing Dev. 2010 Jun 17. [Epub ahead of print]7.Differential roles for DNA Polymerases Eta, Zeta and REV1 in lesion bypass of intrastrand versus interstrand DNA cross-links.Hicks JK, Chute CL, Paulsen MT, Ragland RL, Howlett NG, Gueranger Q, Glover TW, Canman CE.Mol Cell Biol. 2009 Dec 22. [Epub ahead of print]

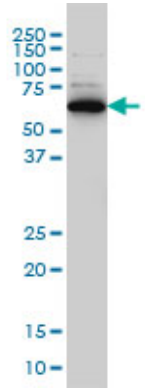
Images



Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (36.63 KDa) .

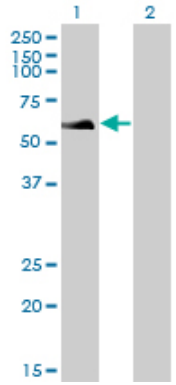


RAD18 monoclonal antibody (M01), clone 3H7. Western Blot analysis of RAD18 expression in PC-12 ((Cat # AT3545a)



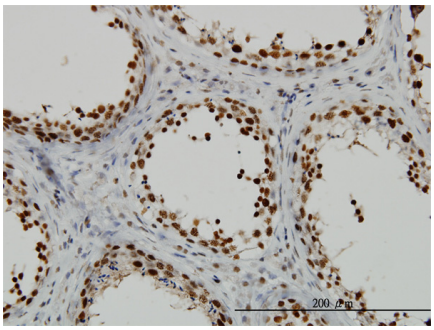
RAD18 monoclonal antibody (M01), clone 3H7 Western Blot analysis of RAD18 expression in Hela S3 NE ((Cat # AT3545a)

Western Blot analysis of RAD18 expression in transfected 293T cell line by RAD18 monoclonal antibody (M01), clone

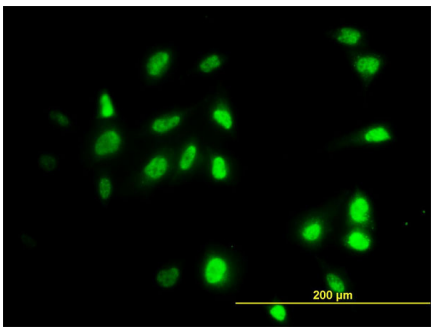


3H7.

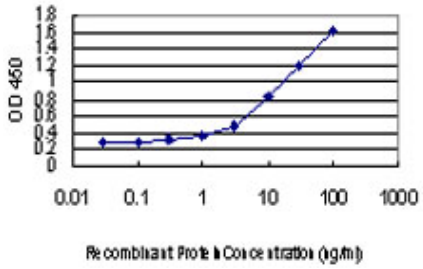
Lane 1: RAD18 transfected lysate(56.2 KDa).
Lane 2: Non-transfected lysate.



Immunoperoxidase of monoclonal antibody to RAD18 on formalin-fixed paraffin-embedded human testis. [antibody concentration 1.5 ug/ml]



Immunofluorescence of monoclonal antibody to RAD18 on HeLa cell. [antibody concentration 25 ug/ml]



Detection limit for recombinant GST tagged RAD18 is approximately 0.1ng/ml as a capture antibody.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.