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RAD23A Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO2164a

Product Information

Application	WB, IHC, FC, E
Primary Accession	P54725
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	3E3F4
Isotype	IgG2b
Calculated MW	39609
Description	The protein encoded by this gene is one of two human homologs of Saccharomyces cerevisiae Rad23, a protein involved in nucleotide excision repair. Proteins in this family have a modular domain structure consisting of an ubiquitin-like domain (UbL), ubiquitin-associated domain 1 (UbA1), XPC-binding domain and UbA2. The protein encoded by this gene plays an important role in nucleotide excision repair and also in delivery of polyubiquitinated proteins to the proteasome. Alternative splicing results in multiple transcript variants encoding multiple isoforms.
Immunogen	Purified recombinant fragment of human RAD23A (AA: 1-363) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide

Additional Information

Gene ID	5886
Other Names	UV excision repair protein RAD23 homolog A, HR23A, hHR23A, RAD23A
Dilution	WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 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	RAD23A Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	RAD23A (HGNC:9812)

Function	Multifunctional protein that participates in histone H4K20 demethylation, DNA repair, ubiquitin-dependent protein degradation, transcriptional regulation, and viral replication (PubMed:12643283, PubMed:14621999, PubMed:15321727, PubMed:20614012, PubMed:32209475, PubMed:9372924). Specifically demethylates mono-, di- and trimethylated 'Lys-20' of histone H4 (H4K20me1, H4K20me2, H4K20me3, respectively) into unmethylated forms. Activates the transcription of coding genes by demethylating H4K20me1 and the transcription of repetitive elements by demethylating H4K20me3 (PubMed:32209475). Involved in modulation of proteasomal degradation. Binds to 'Lys-48'-linked polyubiquitin chains in a length-dependent manner and with a lower affinity to 'Lys-63'- linked polyubiquitin chains. Proposed to be capable to bind simultaneously to the 26S proteasome and to polyubiquitinated substrates and to deliver ubiquitinated proteins to the proteasome (PubMed:12643283, PubMed:14621999, PubMed:15321727). Involved in nucleotide excision repair, is considered functionally equivalent to RAD23B in global genome nucleotide excision repair (GG-NER) through its association with XPC. In vitro, the XPC-RAD23A complex demonstrates NER activity (PubMed:9372924). Can stabilize XPC (By similarity).
Cellular Location	Nucleus.

References

1.Biochem Biophys Res Commun. 2013 Feb 22;431(4):686-92.2.Exp Cell Res. 2001 Jul 15;267(2):243-57.

Images

