10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

hHR23A Rabbit mAb

Catalog # AP76524

Product Information

Application	WB
Primary Accession	P54725
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Purified
Calculated MW	39609

Additional Information

Gene ID	5886
Other Names	RAD23A
Dilution	WB~~1:1000
Format	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

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.

Background

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.

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