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RAD23A Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP14556a

Product Information

Application	WB, E
Primary Accession	P54725
Other Accession	A3KMV2, NP_005044.1
Reactivity	Human
Predicted	Bovine
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB34511
Calculated MW	39609
Antigen Region	42-70

Additional Information

Gene ID	5886
Other Names	UV excision repair protein RAD23 homolog A, HR23A, hHR23A, RAD23A
Target/Specificity	This RAD23A antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 42-70 amino acids from the N-terminal region of human RAD23A.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	RAD23A Antibody (N-term) 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.

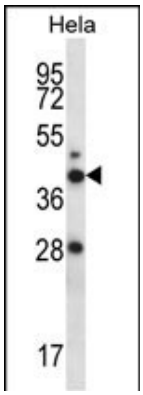
Background

The protein encoded by this gene is one of two human homologs of Saccharomyces cerevisiae Rad23, a protein involved in nucleotide excision repair (NER). This protein was shown to interact with, and elevate the nucleotide excision activity of 3-methyladenine-DNA glycosylase (MPG), which suggested a role in DNA damage recognition in base excision repair. This protein contains an N-terminal ubiquitin-like domain, which was reported to interact with 26S proteasome, as well as with ubiquitin protein ligase E6AP, and thus suggests that this protein may be involved in the ubiquitin mediated proteolytic pathway in cells. [provided by RefSeq].

References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010)
Briggs, F.B., et al. Am. J. Epidemiol. 172(2):217-224(2010)
Monsees, G.M., et al. Breast Cancer Res. Treat. (2010) In press :
Li, G., et al. PLoS ONE 5 (6), E11371 (2010) :
Talmud, P.J., et al. Am. J. Hum. Genet. 85(5):628-642(2009)

Images



RAD23A Antibody (N-term) (Cat. #AP14556a) western blot analysis in Hela cell line lysates (35ug/lane).This demonstrates the RAD23A antibody detected the RAD23A protein (arrow).