

KD-Validated Anti-RAD23B Mouse Monoclonal Antibody

Mouse monoclonal antibody

Catalog # AGI1948

Product Information

Application	WB
Primary Accession	P54727
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Mouse IgG1
Clone Names	24GB6575
Calculated MW	43171
Gene Name	RAD23B
Aliases	RAD23B; RAD23 Homolog B, Nucleotide Excision Repair Protein; HHR23B; HR23B; P58; XP-C Repair-Complementing Complex 58 KDa Protein; UV Excision Repair Protein RAD23 Homolog B; XP-C Repair Complementing Complex 58 KDa; XP-C Repair Complementing Protein; RAD23 (S. Cerevisiae) Homolog B; RAD23 Homolog B (S. Cerevisiae); RAD23, Yeast Homolog Of, B Recombinant protein of human RAD23B
Immunogen	

Additional Information

Gene ID	5887
Other Names	UV excision repair protein RAD23 homolog B, HR23B, hHR23B, XP-C repair-complementing complex 58 kDa protein, p58, RAD23B

Protein Information

Name	RAD23B (HGNC:9813)
Function	Multifunctional protein that participates in histone H4K20 demethylation, DNA repair, ubiquitin-dependent protein degradation and transcriptional regulation (PubMed: 10488153 , 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). Multiubiquitin chain receptor involved in modulation of proteasomal degradation. Binds to 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: 10488153 , PubMed: 19435460). May play a role in endoplasmic reticulum-associated degradation (ERAD) of misfolded glycoproteins by association with PNGase and delivering deglycosylated proteins to the proteasome (PubMed: 15358861). Involved in global genome nucleotide excision repair (GG-NER) by acting as component of the XPC

complex, a nucleotide- excision repair complex that is involved in damage sensing during global genome nucleotide excision repair. In vitro, the XPC:RAD23B dimer is sufficient to initiate NER; it preferentially binds to cisplatin and UV-damaged double-stranded DNA. Recognizes a wide spectrum of damaged DNA characterized by distortions of the DNA helix including single-stranded loops, mismatched bubbles or single-stranded overhangs. Cooperatively with CETN2 appears to stabilize XPC (PubMed:[10873465](#), PubMed:[12815074](#), PubMed:[9372924](#)).

Cellular Location

Nucleus. Cytoplasm Note=The intracellular distribution is cell cycle dependent. Localized to the nucleus and the cytoplasm during G1 phase. Nuclear levels decrease during S-phase; upon entering mitosis, relocalizes in the cytoplasm without association with chromatin

Tissue Location

[Isoform 2]: Highly expressed in the testis and in ejaculated spermatozoa.

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