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KD-Validated Anti-RAD23B Mouse Monoclonal Antibody

Mouse monoclonal antibody
Catalog # AGI1948

Specification

KD-Validated Anti-RAD23B Mouse Monoclonal Antibody - Product Information

Application	**WB**
Primary Accession	P54727
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse IgG1**
Calculated MW	**Predicted, 43 kDa, observed, 53 kDa KDa**
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**
Immunogen	**Recombinant protein of human RAD23B**

KD-Validated Anti-RAD23B Mouse Monoclonal Antibody - 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

KD-Validated Anti-RAD23B Mouse Monoclonal Antibody - Protein Information

Name RAD23B

Function
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. May play a role in endoplasmic reticulum-associated degradation (ERAD) of misfolded glycoproteins by association with PNGase and delivering deglycosylated proteins to the proteasome. The XPC complex is proposed to represent the first factor bound at the sites of DNA damage and together with other core recognition factors, XPA, RPA and the TFIIH complex, is part of the pre-incision (or initial recognition) complex. The XPC complex recognizes a wide spectrum of damaged DNA characterized by distortions of the DNA helix such as single-stranded loops, mismatched bubbles or single-stranded overhangs. The orientation of XPC complex binding appears to be crucial for inducing a productive NER. XPC complex is proposed to recognize and to interact with unpaired

bases on the undamaged DNA strand which is followed by recruitment of the TFIIH complex and subsequent scanning for lesions in the opposite strand in a 5'-to-3' direction by the NER machinery. Cyclobutane pyrimidine dimers (CPDs) which are formed upon UV-induced DNA damage esacpe detection by the XPC complex due to a low degree of structural perurbation. Instead they are detected by the UV-DDB complex which in turn recruits and cooperates with the XPC complex in the respective DNA repair. In vitro, the XPC:RAD23B dimer is sufficient to initiate NER; it preferentially binds to cisplatin and UV-damaged double-stranded DNA and also binds to a variety of chemically and structurally diverse DNA adducts. XPC:RAD23B contacts DNA both 5' and 3' of a cisplatin lesion with a preference for the 5' side. XPC:RAD23B induces a bend in DNA upon binding. XPC:RAD23B stimulates the activity of DNA glycosylases TDG and SMUG1.

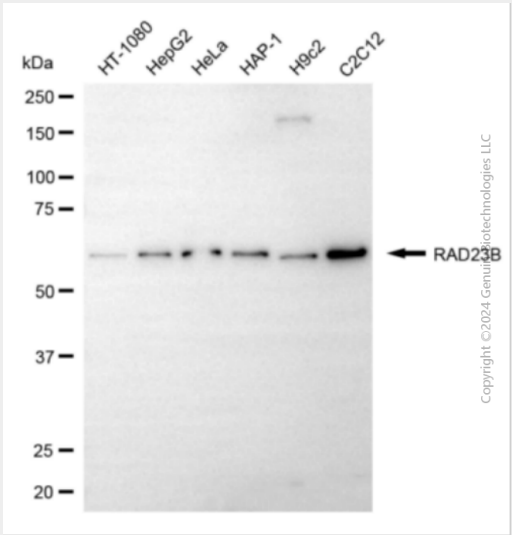
Cellular Location
Nucleus. Cytoplasm. Note=The intracellular distribution is cell cycle dependent. Localized to the nucleus and the cytoplasm during G1 phase. Nuclear levels decrease during S-phase; upon entering mitosis, relocalizes in the cytoplasm without association with chromatin

KD-Validated Anti-RAD23B Mouse Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

KD-Validated Anti-RAD23B Mouse Monoclonal Antibody - Images



Western blotting analysis using anti-RAD23B antibody (Cat#AGI1948). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-RAD23B antibody (Cat#AGI1948, 1:2,500) and HRP-conjugated goat anti-mouse secondary antibody respectively.

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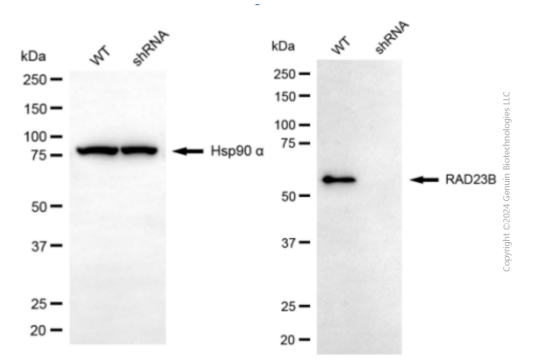

Western blotting analysis using anti-RAD23B antibody (Cat#AGI1948). RAD23B expression in wild type (WT) and RAD23B shRNA knockdown (KD) HT-1080 cells with 30 µg of total cell lysates. Hsp90 α serves as a loading control. The blot was incubated with anti-RAD23B antibody (Cat#AGI1948, 1:2,500) and HRP-conjugated goat anti-mouse secondary antibody respectively.