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Anti-HR23B RAD23B Antibody

Catalog Number: A02174

About RAD23B

HR23B (also known as UV excision repair protein RAD23 homolog B, XP-C repair complementing complex 58 kDa protein and p58) is one of two human homologs of Saccharomyces cerevisiae Rad23 (hHR23A and hHR23B), 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.

Overview

Product Name	Anti-HR23B RAD23B Antibody
Reactive Species	Human
Description	Boster Bio Anti-HR23B RAD23B Antibody (Catalog # A02174). Tested in ELISA, WB applications. This antibody reacts with Human.
Application	ELISA, WB
Clonality	Polyclonal
Formulation	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2, 0.01% (w/v) Sodium Azide
Storage Instructions	Store vial at -20°C prior to opening. Aliquot contents and freeze at -20°C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4°C as an undiluted liquid. Dilute only prior to immediate use. Expiration date is one (1) year from date of opening. (Ship on dry ice.)
Host	Goat
Uniprot ID	P54727

Technical Details

Immunogen	This affinity purified antibody was prepared from whole goat serum produced by repeated immunizations with a synthetic peptide corresponding to an internal region near aa 155-180 of human HR23B protein.
Predicted Reactive Species	Bovine, Pufferfish, Zebrafish
Isotype	IgG
Form	Liquid (sterile filtered)

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Concentration	1.1 mg/mL by UV absorbance at 280 nm
Purification	This is an affinity-purified antibody produced by immunoaffinity chromatography using the immunizing peptide after immobilization to a solid phase. Reactivity occurs against human HR23B protein. Sequence homology as assessed by BLAST indicated 100% homology for this protein from human, dog, chimpanzee and S. cerevisiae. Cross-reactivity with HR23B protein from mouse and rat may also occur as sequence homology varies by one amino acid residue in this sequence by BLAST analysis. Reactivity with HR23B protein from other sources is not known.
Suggested Dilutions	ELISA: 1:2,000 - 1:10,000 WB: 1:500 - 1:2,000 This affinity purified antibody has been tested for use in ELISA and by western blot. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 58 kDa in size corresponding to HR23B by western blotting in the appropriate cell lysate or extract.

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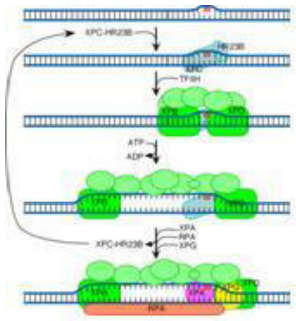
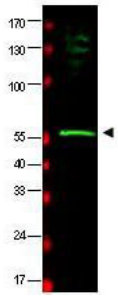
Anti-HR23B RAD23B Antibody (A02174) Images



NER mechanism recognizes damaged DNA regions based on their abnormal structure as well as on their abnormal chemistry, then excises and replaces them. The overall process of NER in eukaryotic cells resembles that in E. coli. The initial steps depend on whether the damage is in the actively transcribed strand of a gene or elsewhere in the genome. If the damage is not in the actively transcribed strand of a gene, then the damage is recognized and bound by a heterodimer consisting of the XPC and HR23B proteins. The binding of XPC and HR23B initiates the process of ''global genome repair'' (GGR). The XPC/HR23B dimer appears to recognize damaged DNA based on the extent of distortion of the normal helical DNA structure caused by the damage. In the process of binding to the damaged region, XPC/HR23B is thought to further increase the extent of structural distortion



Western blot using Boster's affinity purified anti-HR23B antibody shows detection of a band at ~58 kDa (arrowhead) corresponding to HR23B present in a HeLa whole cell lysate . Pre-incubation of antibody with immunizing peptide completely blocks reactivity (data not shown). Approximately 33 µg of lysate was separated by 4-20% Tris Glycine SDS-PAGE. After blocking the membrane was probed overnight at 4°C with the primary antibody diluted to 1:500 in 5% BLOTTO in PBS. The membrane was washed and reacted with a 1:20,000 dilution of IRDye™800 conjugated Rb-a-Goat IgG [H&L] for 45 min at room temperature (800 nm channel, green). Molecular weight estimation was made by comparison to prestained MW markers indicated at left (700 nm channel, red). IRDye™800 fluorescence image was captured using the Odyssey® Infrared Imaging System developed by LI-COR. IRDye is a trademark of LI-COR, Inc. Other detection systems will yield similar results.

Anti-HR23B RAD23B Antibody

For Research Use Only. Not for use in diagnostic procedures.