Datasheet for 600-101-391

HR23B Antibody

Overview

Description:	Anti-HR23B (GOAT) Antibody - 600-101-391
Item No.:	600-101-391
Size:	100 µg
Applications:	ELISA, WB
Reactivity:	Human
Host Species:	Goat

Product Details

Background:	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.
Synonyms:	goat anti-HR23B antibody, hHR23B antibody, mHR23B antibody, p58 antibody, RAD23 (S. cerevisiae) homolog B antibody, UV excision repair protein RAD23 homolog B, XP-C repair-complementing complex 58 kDa protein
Host Species:	Goat
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	RAD23B
Reactivity:	Human
Immunogen Type:	Conjugated Peptide

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.
Purity/Specificity:	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.
Relevant Links:	• UniProtKB - P54727 • NCBI - 4506387 • GeneID - 5887

Application Details

Tested Applications:	ELISA, WB
Application Note:	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.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:2,000 - 1:10,000
WB:	1:500 - 1:2,000

Formulation

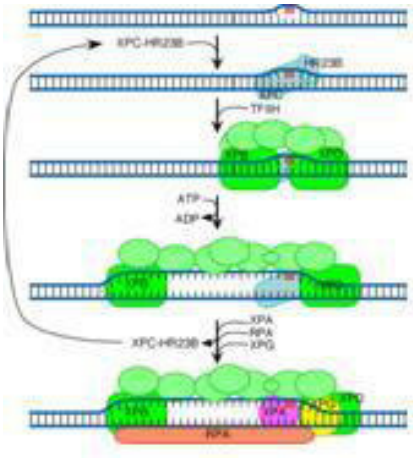
Physical State:	Liquid (sterile filtered)
Concentration:	1.1 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

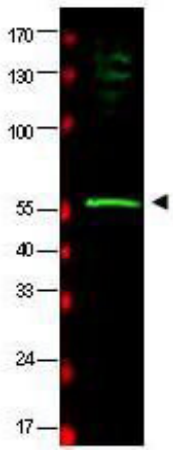
Shipping Condition:	Dry Ice

Storage Condition:	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:	Expiration date is one (1) year from date of receipt.

Images



Pathway
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
Western blot using Rockland'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 (p/n W09-000-364). 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 (p/n B501-0500) in PBS. The membrane was washed and reacted with a 1:20,000 dilution of IRDye™800 conjugated Rb-a-Goat IgG [H&L] (p/n 605-432-013) 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.

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