

**Anti-HR23B (GOAT) Antibody**  
**HR23B Antibody**  
**Catalog # ASR5096****Specification**

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**Anti-HR23B (GOAT) Antibody - Product Information**

Host	Goat
Conjugate	Unconjugated
Target Species	Human
Reactivity	Human
Clonality	Polyclonal
Application	WB, E, I, LCI
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.
Physical State	Liquid (sterile filtered)
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
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.
Preservative	0.01% (w/v) Sodium Azide

**Anti-HR23B (GOAT) Antibody - Additional Information****Gene ID 5887****Other Names**  
5887**Purity**

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.

**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.

#### **Precautions Note**

This product is for research use only and is not intended for therapeutic or diagnostic applications.

### **Anti-HR23B (GOAT) 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 escape detection by the XPC complex due to a low degree of structural perturbation. 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**

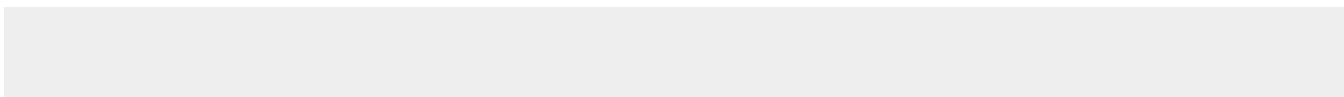
Nucleus. Cytoplasm. Note=The intracellular distribution is cell cycle dependent. Localized to the nucleus and the cytoplasm during G1 phase. Nuclear levels decrease during S-phase; upon entering mitosis, relocates in the cytoplasm without association with chromatin

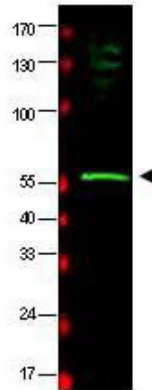
### **Anti-HR23B (GOAT) Antibody - Protocols**

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### **Anti-HR23B (GOAT) Antibody - Images**





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  $\mu$ g 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.

#### **Anti-HR23B (GOAT) Antibody - 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.