

**RAD23B Antibody (N-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP14862a**

**Specification**

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**RAD23B Antibody (N-term) - Product Information**

Application	WB,E
Primary Accession	<a href="#">P54727</a>
Other Accession	<a href="#">Q4KMA2</a> , <a href="#">P54728</a> , <a href="#">Q29RK4</a> , <a href="#">NP_002865.1</a>
Reactivity	Human
Predicted	Bovine, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	43171
Antigen Region	11-40

**RAD23B Antibody (N-term) - 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

**Target/Specificity**

This RAD23B antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 11-40 amino acids from the N-terminal region of human RAD23B.

**Dilution**

WB~~1:1000

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

RAD23B Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**RAD23B Antibody (N-term) - 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**

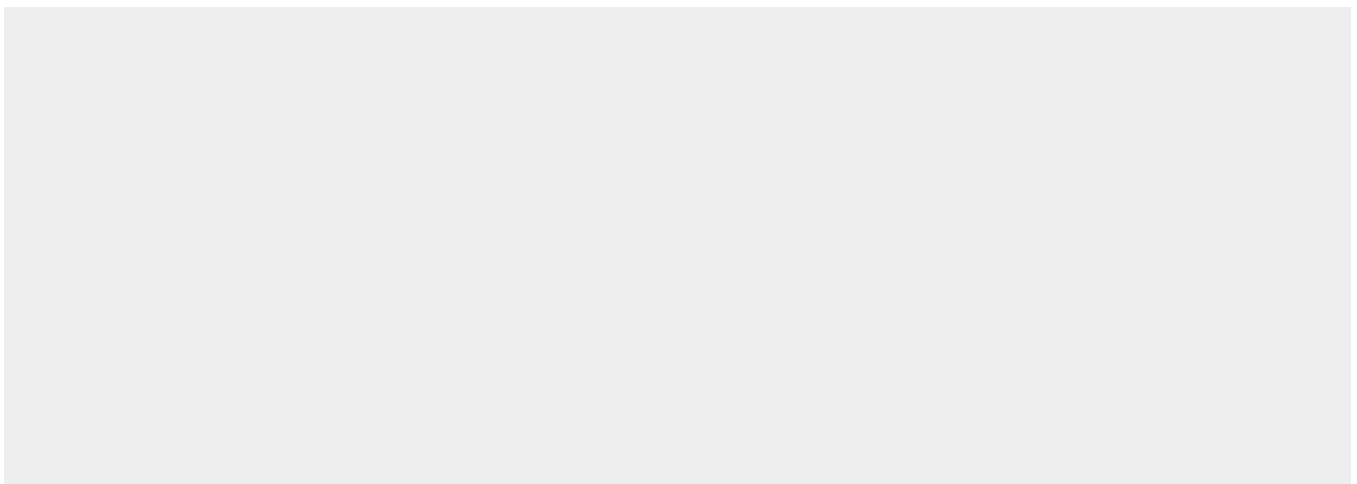
Nucleus. Cytoplasm. Note=The intracellular distribution is cell cycle dependent. Localized to the nucleus and the cytoplasm during G1 phase. Nuclear levels decrease during S-phase; upon entering mitosis, relocalizes in the cytoplasm without association with chromatin

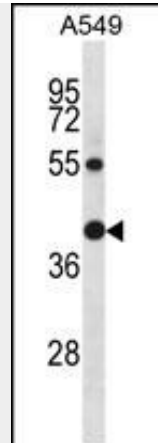
#### **RAD23B Antibody (N-term) - Protocols**

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](#)

#### **RAD23B Antibody (N-term) - Images**





RAD23B Antibody (N-term) (Cat. #AP14862a) western blot analysis in A549 cell line lysates (35ug/lane). This demonstrates the RAD23B antibody detected the RAD23B protein (arrow).

### **RAD23B Antibody (N-term) - Background**

The protein encoded by this gene is one of two human homologs of *Saccharomyces cerevisiae* Rad23, a protein involved in the nucleotide excision repair (NER). This protein was found to be a component of the protein complex that specifically complements the NER defect of xeroderma pigmentosum group C (XP-c) cell extracts in vitro. This protein was also 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, and thus this protein may be involved in the ubiquitin mediated proteolytic pathway in cells.

### **RAD23B Antibody (N-term) - References**

Briggs, F.B., et al. *Am. J. Epidemiol.* 172(2):217-224(2010)  
Guillem, V.M., et al. *Am. J. Hematol.* 85(7):482-486(2010)  
Liu, C.Y., et al. *Carcinogenesis* 31(7):1259-1263(2010)  
Monsees, G.M., et al. *Breast Cancer Res. Treat.* (2010) In press :  
Rajaraman, P., et al. *Neuro-oncology* 12(1):37-48(2010)