

## **RAD23B monoclonal antibody**

Catalog:	MB67024
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Host: Mo

Mouse

Reactivity: Human, Mouse, Rat

### **BackGround:**

The yeast nucleotide excision repair (NER) radiation sensitive protein 23 (rad23) and its human homologs Rad23A (hHR23A) and Rad23B (hHR23B) are critical components of the cellular machinery that recognize DNA lesions and serve as receptors that target ubiquitinated substrates to the proteasome for degradation.

The UV excision repair protein Rad23B is a multi-domain scaffold protein that plays an important role in ubiquitin-dependent proteasomal degradation. Rad23B contains an amino-terminal ubiquitin-like (UbL) domain that facilitates interaction with the S5a/PSMD4 subunit of the proteasome 19S regulatory complex . In addition, Rad23B contains a central ubiquitin-associated domain (UBA1) and a carboxy-terminal UBA2 domain, which bind mono- and polyubiquitin with distinct specificities . Research studies demonstrate that Rad23B binds specifically to K48-ubiquitinated proteins to facilitate recruitment of target proteins to the proteasome. Between the paired UBA domains, Rad23B contains an XPC-binding domain that facilitates binding to XPC and recruitment to DNA lesions , as well as the binding of peptide:N-glycanase that is critical for recruitment of ubiquitinated ERAD substrates to the proteasome . Research studies have shown that targeted deletion of the murine Rad23b locus impairs embryonic development, suggesting that Rad23B is essential for mammalian development.

### **Product:**

Mouse IgG1 kappa. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.

**Molecular Weight:** 

~ 53 kDa

**Swiss-Prot:** 

P54727

**Purification&Purity:** 

This antibody is purified through a protein G column.

**Applications:** 

WB (1/500 - 1/1000)

Storage&Stability:

Store at  $4 \ C$  short term. Aliquot and store at  $-20 \ C$  long term. Avoid freeze-thaw cycles.

#### **Specificity:**

Recognizes endogenous levels of RAD23B protein.

### DATA:



Western blot analysis of RAD23B expression in Jurkat (A), A549 (B), HUVEC (C), NIH3T3 (D), mouse brain (E), rat brain (F) whole cell ly-

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For research use only, not for use in diagnostic procedure.

#### Bioworld Technology, Inc. Add: 1660 South Highway 100, Suite 500 St. Louis Park, MN 55416 USA

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#### Bioworld technology, co. Ltd. Add: No 9, weidi road Qixia District Nanjing, 210046, P. R. China. Email: <u>info@biogot.com</u> Tel: 0086-025-68037686 Fax: 0086-025-68035151