Rad21 (B-2): sc-271601

**BACKGROUND**

Rad21 is one of the major cohesin subunits that holds sister chromatids together until anaphase, when proteolytic cleavage by separase, a caspase-like enzyme, allows chromosomal separation. Rad21 interacts with Rec8 to form a cohesin complex that functions in sister chromatid alignment. Rad21 is also involved in the repair of double-strand breaks in DNA and is essential for mitotic growth. Rad21 undergoes a C-terminal cleavage induced by diverse stimuli right before apoptosis. The cleavage product migrates to the cytoplasm and is involved in early events in the apoptotic pathway and it amplifies the cell death signal in a positive-feedback manner. The Rad21 gene is related to the invasion and metastasis of cancer cells, and Rad21 is a potential target for cancer therapeutics that may enhance the anti-tumor activity of chemotherapeutic agents acting through the induction of DNA damage.

**CHROMOSOMAL LOCATION**

Genetic locus: RAD21 (human) mapping to 8q24.11; Rad21 (mouse) mapping to 15 C.

**SOURCE**

Rad21 (B-2) is a mouse monoclonal antibody raised against amino acids 143-352 mapping within an internal region of Rad21 of human origin.

**PRODUCT**

Each vial contains 200 μg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**STORAGE**

Store at 4°C. **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**APPLICATIONS**

Rad21 (B-2) is recommended for detection of Rad21 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation (1-2 μg per 100-500 μg of total protein) and solid phase ELISA (starting dilution 1:30, dilution range 1:50-1:200) and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG BP-HRP: sc-516102 or m-IgG BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker® Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-56214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG BP-FITC: sc-516140 or m-IgG BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Hard-set Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

**DATA**

Rad21 (B-2): sc-271601. Western blot analysis of Rad21 expression in HeLa A and NIH/3T3 B nuclear extracts. Rad21 (B-3): sc-271601. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization.

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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

**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.