

# XRCC6BP1 (FL-246): sc-135355

## BACKGROUND

XRCC6BP1, also known as mitochondrial inner membrane protease ATP23 homolog or KUB3, is a 246 amino acid protein. As a member of the peptidase M76 family, XRCC6BP1 interacts with XRCC6. The gene encoding XRCC6BP1 maps to human chromosome 12 and encodes Ku70 binding protein. Ku70 is a part of the DNA-dependent protein kinase complex and is involved in double-strand break repair. It is suggested that XRCC6BP1 gene amplification affects double-strand break repair in glioblastoma cell lines. Chromosome 12 is associated with a variety of diseases and afflictions, including hypochondrogenesis, achondrogenesis, Kniest dysplasia, Noonan syndrome and trisomy 12p, which causes facial developmental defects and seizure disorders.

## REFERENCES

1. Szala, S., et al. 1990. Molecular cloning of cDNA for the human tumor-associated antigen CO-029 and identification of related transmembrane antigens. *Proc. Natl. Acad. Sci. USA* 87: 6833-6837.
2. Gwynn, B., et al. 1996. Genetic localization of Cd63, a member of the transmembrane 4 superfamily, reveals two distinct loci in the mouse genome. *Genomics* 35: 389-391.
3. Yang, C.R., et al. 1999. Isolation of Ku70-binding proteins (KUBs). *Nucleic Acids Res.* 27: 2165-2174.
4. Gerhard, D.S., et al. 2004. The status, quality, and expansion of the NIH full-length cDNA project: the mammalian gene collection (MGC). *Genome Res.* 14: 2121-2127.
5. Scherer, S.E., et al. 2006. The finished DNA sequence of human chromosome 12. *Nature* 440: 346-351.
6. Fischer, U., et al. 2008. A different view on DNA amplifications indicates frequent, highly complex, and stable amplicons on 12q13-21 in glioma. *Mol. Cancer Res.* 6: 576-584.

## CHROMOSOMAL LOCATION

Genetic locus: XRCC6BP1 (human) mapping to 12q14.1; Xrcc6bp1 (mouse) mapping to 10 D3.

## SOURCE

XRCC6BP1 (FL-246) is a rabbit polyclonal antibody raised against amino acids 1-246 representing full length XRCC6BP1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG 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.

## RESEARCH USE

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

## APPLICATIONS

XRCC6BP1 (FL-246) is recommended for detection of XRCC6BP1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

XRCC6BP1 (FL-246) is also recommended for detection of XRCC6BP1 in additional species, including bovine and porcine.

Suitable for use as control antibody for XRCC6BP1 siRNA (h): sc-95934, XRCC6BP1 siRNA (m): sc-155393, XRCC6BP1 shRNA Plasmid (h): sc-95934-SH, XRCC6BP1 shRNA Plasmid (m): sc-155393-SH, XRCC6BP1 shRNA (h) Lentiviral Particles: sc-95934-V and XRCC6BP1 shRNA (m) Lentiviral Particles: sc-155393-V.

Molecular Weight of XRCC6BP1: 28 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.