

# SYNJ2BP (N-12): sc-163414

## BACKGROUND

SYNJ2BP (Synaptojanin-2-binding protein), also known as mitochondrial outer membrane protein 25 (OMP25) or ARIP2, is a 145 amino acid mitochondrial outer membrane protein that contains one PDZ (DHR) domain. The PDZ domain on SYNJ2BP binds to isoform 2A of Synaptojanin 2. The gene that encodes SYNJ2BP contains 50,595 bases and maps to human chromosome 14q24.2. Housing over 700 genes, chromosome 14 comprises nearly 3.5% of the human genome. Chromosome 14 encodes the Presenilin 1 (PSEN1) gene, which is one of the three key genes associated with the development of Alzheimer's disease. The SERPINA1 gene is also located on chromosome 14 and, when defective, leads to the genetic disorder  $\alpha$ 1-antitrypsin deficiency, which is characterized by severe lung complications and liver dysfunction.

## REFERENCES

1. Nemoto, Y., et al. 1999. Recruitment of an alternatively spliced form of synaptojanin 2 to mitochondria by the interaction with the PDZ domain of a mitochondrial outer membrane protein. *EMBO J.* 18: 2991-3006.
2. Matsuzaki, T., et al. 2002. Regulation of endocytosis of activin type II receptors by a novel PDZ protein through Ral/Ral-binding protein 1-dependent pathway. *J. Biol. Chem.* 277: 19008-19018.
3. Dabrowski, M., et al. 2003. Gene profiling of hippocampal neuronal culture. *J. Neurochem.* 85: 1279-1288.
4. Tsuchida, K., et al. 2004. Novel factors in regulation of activin signaling. *Mol. Cell. Endocrinol.* 225: 1-8.
5. Zhang, H.J., et al. 2007. Regulation of activin receptor-interacting protein 2 expression in mouse hepatoma Hepa1-6 cells and its relationship with collagen type IV. *World J. Gastroenterol.* 13: 5501-5505.
6. Li, Z.D., et al. 2009. Identification and characterization of human ARIP2 and its relation to breast cancer. *Cytokine* 46: 251-259.
7. Liu, H.Y., et al. 2009. Expression and localization of activin receptor-interacting protein 2 in mouse tissues. *Gen. Comp. Endocrinol.* 161: 276-282.

## CHROMOSOMAL LOCATION

Genetic locus: SYNJ2BP (human) mapping to 14q24.2; Synj2bp (mouse) mapping to 12 D1.

## SOURCE

SYNJ2BP (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of SYNJ2BP of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-163414 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

SYNJ2BP (N-12) is recommended for detection of SYNJ2BP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

SYNJ2BP (N-12) is also recommended for detection of SYNJ2BP in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for SYNJ2BP siRNA (h): sc-92196, SYNJ2BP siRNA (m): sc-153988, SYNJ2BP shRNA Plasmid (h): sc-92196-SH, SYNJ2BP shRNA Plasmid (m): sc-153988-SH, SYNJ2BP shRNA (h) Lentiviral Particles: sc-92196-V and SYNJ2BP shRNA (m) Lentiviral Particles: sc-153988-V.

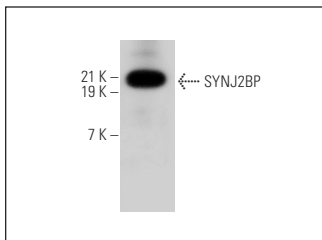
Molecular Weight of SYNJ2BP: 16 kDa.

Positive Controls: mouse stomach extract: sc-394628.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



SYNJ2BP (N-12): sc-163414. Western blot analysis of SYNJ2BP expression in mouse stomach tissue extract.

## STORAGE

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

## PROTOCOLS

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