

Bet1 (17): sc-136390

BACKGROUND

Bet1 (Bet1p homologue, rbet1) is a type IV membrane protein. It is required for vesicular transport from the ER to the Golgi complex. Bet1 forms a complex with SNARE (soluble N-ethylmaleimide-sensitive factor attachment protein receptor), and functions in membrane fusion between ER-derived vesicles and vesicular tubular clusters (VTCs) or by homotypically fusing ER-derived vesicles. Bet1 is predominantly associated with vesicular spotty structures that concentrate in the peri-Golgi region but are also present throughout the cytoplasm.

REFERENCES

- Newman, A.P., et al. 1990. Bet1, BOS1 and SEC22 are members of a group of interacting yeast genes required for transport from the endoplasmic reticulum to the Golgi complex. *Mol. Cell. Biol.* 10: 3405-3414.
- Hay, J.C., et al. 1996. Mammalian vesicle trafficking proteins of the endoplasmic reticulum and Golgi apparatus. *J. Biol. Chem.* 271: 5671-5679.
- Xu, D., et al. 2000. Subunit structure of a mammalian ER/Golgi SNARE complex. *J. Biol. Chem.* 275: 39631-39639.
- Zhang, T., et al. 2001. Ykt6 forms a SNARE complex with Syntaxin 5, GS28 and Bet1 and participates in a late stage in endoplasmic reticulum-Golgi transport. *J. Biol. Chem.* 276: 27480-27487.
- Joglekar, A.P., et al. 2003. The SNARE motif contributes to rbet1 intracellular targeting and dynamics independently of SNARE interactions. *J. Biol. Chem.* 278: 14121-14133.
- Miller, E.A., et al. 2003. Multiple cargo binding sites on the COPII subunit Sec24p ensure capture of diverse membrane proteins into transport vesicles. *Cell* 114: 497-509.
- Volchuk, A., et al. 2004. Countercurrent distribution of two distinct SNARE complexes mediating transport within the Golgi stack. *Mol. Biol. Cell* 15: 1506-1518.
- SWISS-PROT/TrEMBL (O15155). World Wide Web URL: <http://www.expasy.ch/sprot/sprot-top.html>.

CHROMOSOMAL LOCATION

Genetic locus: BET1 (human) mapping to 7q21.3; Bet1 (mouse) mapping to 6 A1.

SOURCE

Bet1 (17) is a mouse monoclonal antibody raised against amino acids 8-102 of Bet1 of rat origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Bet1 (17) is available conjugated to agarose (sc-136390 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; and to HRP (sc-136390 HRP), 200 µg/ml, for WB, IHC(P) and ELISA.

APPLICATIONS

Bet1 (17) is recommended for detection of Bet1 of mouse, rat, human and canine origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for Bet1 siRNA (h): sc-45900, Bet1 siRNA (m): sc-45901, Bet1 shRNA Plasmid (h): sc-45900-SH, Bet1 shRNA Plasmid (m): sc-45901-SH, Bet1 shRNA (h) Lentiviral Particles: sc-45900-V and Bet1 shRNA (m) Lentiviral Particles: sc-45901-V.

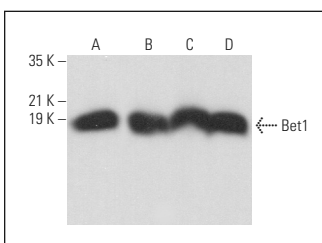
Molecular Weight of Bet1: 18 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214, PC-12 cell lysate: sc-2250 or rat liver extract: sc-2395.

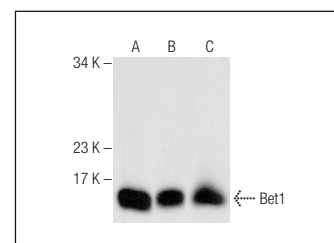
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



Bet1 (17): sc-136390. Western blot analysis of Bet1 expression in PC-12 (A), SCC-4 (B), Caki-1 (C) and ACHN (D) whole cell lysates.



Bet1 (17): sc-136390. Western blot analysis of Bet1 expression in KNRK (A) and PC-12 (B) whole cell lysates and rat liver tissue extract (C).

SELECT PRODUCT CITATIONS

- Adolf, F., et al. 2016. Sec24C/D-isoform-specific sorting of the preassembled ER-Golgi Q-SNARE complex. *Mol. Biol. Cell* 27: 2697-2707.
- Matsui, T., et al. 2018. Autophagosomal YKT6 is required for fusion with lysosomes independently of Syntaxin 17. *J. Cell Biol.* 217: 2633-2645.
- Adolf, F., et al. 2019. Proteomic profiling of mammalian COPII and COPI vesicles. *Cell Rep.* 26: 250-265.

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.