

# Bet1 (16G6): sc-58247

## BACKGROUND

Bet1 (Bet1p homolog, 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

1. 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.
2. Hay, J.C., et al. 1996. Mammalian vesicle trafficking proteins of the endoplasmic reticulum and Golgi apparatus. *J. Biol. Chem.* 271: 5671-5679.
3. Xu, D., et al. 2000. Subunit structure of a mammalian ER/Golgi SNARE complex. *J. Biol. Chem.* 275: 39631-39639.
4. 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.
5. 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.
6. 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.
7. Volchuk, A., et al. 2004. Countercurrent distribution of two distinct SNARE complexes mediating transport within the Golgi stack. *Mol. Biol. Cell* 15: 1506-1518.

## CHROMOSOMAL LOCATION

Genetic locus: Bet1 (mouse) mapping to 6 A1.

## SOURCE

Bet1 (16G6) is a mouse monoclonal antibody raised against full length Bet1 of rat origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Bet1 (16G6) is available conjugated to agarose (sc-58247 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-58247 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-58247 PE), fluorescein (sc-58247 FITC), Alexa Fluor® 488 (sc-58247 AF488), Alexa Fluor® 546 (sc-58247 AF546), Alexa Fluor® 594 (sc-58247 AF594) or Alexa Fluor® 647 (sc-58247 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-58247 AF680) or Alexa Fluor® 790 (sc-58247 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

Bet1 (16G6) is recommended for detection of Bet1 of mouse and rat 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).

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

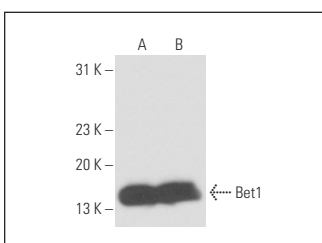
Molecular Weight of Bet1: 18 kDa.

Positive Controls: PC-12 cell lysate: sc-2250 or NRK whole cell lysate: sc-364197.

## 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). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



Bet1 (16G6): sc-58247. Western blot analysis of Bet1 expression in PC-12 (A) and NRK (B) whole cell lysates.

## 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.

## PROTOCOLS

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

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