

BET5 (B-4): sc-377024



The Power to Question

BACKGROUND

Correct vesicular transport is essential to the survival of eukaryotic cells. The TRAPP I (transport protein particle I) multi-subunit complex resides on the Golgi apparatus and mediates the targeting of ER-to-Golgi vesicles. The complex is involved in the initial interaction between the vesicle and the target membrane, otherwise known as tethering, which is crucial to ensure specificity. As one of the ten components of the TRAPP complex, BET5, also known as TRAPPC1 (trafficking protein particle complex subunit 1) and MUM2 (multiple myeloma protein 2), is a 145 amino acid protein that acts in conjunction with BET3 to mediate a late stage in ER-to-Golgi vesicular transport. The gene encoding BET5 maps to human chromosome 17, which comprises over 2.5% of the human genome and encodes over 1,200 genes.

REFERENCES

1. Jiang, Y., et al. 1998. A high copy suppressor screen reveals genetic interactions between BET3 and a new gene. Evidence for a novel complex in ER-to-Golgi transport. *Genetics* 149: 833-841.
2. Chiari, R., et al. 1999. Two antigens recognized by autologous cytolytic T lymphocytes on a melanoma result from a single point mutation in an essential housekeeping gene. *Cancer Res.* 59: 5785-5792.
3. Whyte, J.R. and Munro, S. 2002. Vesicle tethering complexes in membrane traffic. *J. Cell Sci.* 115: 2627-2637.
4. Gavin, A.C., et al. 2002. Functional organization of the yeast proteome by systematic analysis of protein complexes. *Nature* 415: 141-147.

CHROMOSOMAL LOCATION

Genetic locus: TRAPPC1 (human) mapping to 17p13.1; Trappc1 (mouse) mapping to 11 B3.

SOURCE

BET5 (B-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 101-133 near the C-terminus of BET5 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.

Blocking peptide available for competition studies, sc-377024 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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 for detailed protocols and support products.

APPLICATIONS

BET5 (B-4) is recommended for detection of BET5 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 (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

BET5 (B-4) is also recommended for detection of BET5 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for BET5 siRNA (h): sc-93679, BET5 siRNA (m): sc-141689, BET5 shRNA Plasmid (h): sc-93679-SH, BET5 shRNA Plasmid (m): sc-141689-SH, BET5 shRNA (h) Lentiviral Particles: sc-93679-V and BET5 shRNA (m) Lentiviral Particles: sc-141689-V.

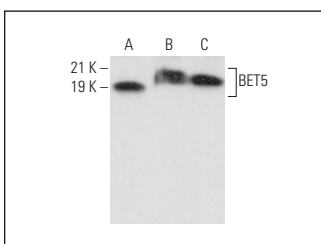
Molecular Weight of BET5: 18 kDa.

Positive Controls: mouse brain extract: sc-2253, C6 whole cell lysate: sc-364373 or rat cerebellum extract: sc-2398.

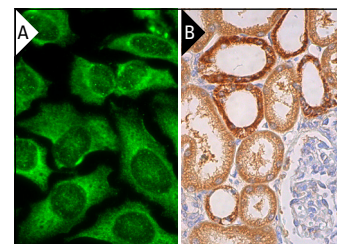
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



BET5 (B-4): sc-377024. Western blot analysis of BET5 expression in C6 whole cell lysate (A) and mouse brain (B) and rat cerebellum (C) tissue extracts.



BET5 (B-4): sc-377024. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules. Blocked with 0.25X UltraCruz® Blocking Reagent: sc-516214. Detected with m-IgGκ BP-B: sc-516142 and ImmunoCruz® ABC Kit: sc-516216 (B).

RESEARCH USE

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