

Ran BP-17 (B-1): sc-518249

BACKGROUND

The transport of proteins and large RNAs through the nuclear pore complexes (NPC) is an energy-dependent and regulated process. The import of proteins with a nuclear localization signal (NLS) is accomplished by recognition of one or more clusters of basic amino acids by the importin- α/β complex. The small GTPase Ran plays a key role in NLS-dependent protein import. Ran BP-17 (ran-binding protein 17) is a 1,088 amino acid protein that belongs to the importin- β superfamily of nuclear transport receptors. Ran BP-17 is highly expressed in testis, moderately expressed in pancreas and weakly expressed in heart, placenta, lung, liver, thyroid, spinal cord, trachea and adrenal gland. The Ran BP-17 protein binds to nucleoporins and the GTP-bound form of Ran. Human Ran BP-16 and Ran BP-17 share 66% amino acid sequence identity. The Ran BP-17 gene is conserved in chimpanzee, canine, bovine, mouse and rat, and maps to human chromosome 5q35.1.

REFERENCES

1. Saltman, D.L., et al. 1993. A physical map of 15 loci on human chromosome 5q23-q33 by two-color fluorescence *in situ* hybridization. *Genomics* 16: 726-732.
2. Koch, P., et al. 2000. Identification of a novel putative Ran-binding protein and its close homologue. *Biochem. Biophys. Res. Commun.* 278: 241-249.
3. Kutay, U., et al. 2000. Identification of two novel RanGTP-binding proteins belonging to the importin β superfamily. *J. Biol. Chem.* 275: 40163-40168.
4. Online Mendelian Inheritance in Man, OMIM[™]. 2001. Johns Hopkins University, Baltimore, MD. MIM Number: 606141. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Su, X.Y., et al. 2006. HOX11L2/TLX3 is transcriptionally activated through T-cell regulatory elements downstream of BCL11B as a result of the t(5;14) (q35;q32). *Blood* 108: 4198-4201.

CHROMOSOMAL LOCATION

Genetic locus: RANBP17 (human) mapping to 5q35.1.

SOURCE

Ran BP-17 (B-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 558-580 of Ran BP-17 of human origin.

PRODUCT

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

Ran BP-17 (B-1) is available conjugated to agarose (sc-518249 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-518249 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518249 PE), fluorescein (sc-518249 FITC), Alexa Fluor[®] 488 (sc-518249 AF488), Alexa Fluor[®] 546 (sc-518249 AF546), Alexa Fluor[®] 594 (sc-518249 AF594) or Alexa Fluor[®] 647 (sc-518249 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-518249 AF680) or Alexa Fluor[®] 790 (sc-518249 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Ran BP-17 (B-1) is recommended for detection of Ran BP-17 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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).

Suitable for use as control antibody for Ran BP-17 siRNA (h): sc-76346, Ran BP-17 shRNA Plasmid (h): sc-76346-SH and Ran BP-17 shRNA (h) Lentiviral Particles: sc-76346-V.

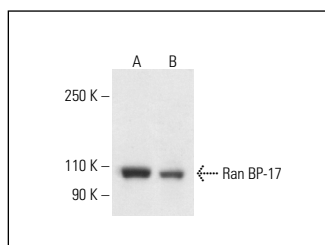
Molecular Weight of Ran BP-17: 124 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227 or HeLa whole cell lysate: sc-2200.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



Ran BP-17 (B-1): sc-518249. Western blot analysis of Ran BP-17 expression in Hep G2 (A) and HeLa (B) whole cell lysates. Detection reagent used: m-IgG κ BP-HRP: sc-525408.

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 for detailed protocols and support products.