SANTA CRUZ BIOTECHNOLOGY, INC.

GTPBP2 (U-25): sc-133645

BACKGROUND

Small G proteins act as molecular switches for regulation of variety of cellular processes, such as nuclear transport, signal transduction, membrane trafficking and protein synthesis. GTPBP2 (GTP-binding protein 2) is a 602 amino acid G protein that is expressed in kidney, skeletal muscle, testis, brain and thymus, though it is not detected in liver. Expression of GTPBP2 is enhanced by γ-interferon stimulation in HeLa cells, THP-1 cells and thioglycollate-elicited mouse peritoneal macrophages. There are four isoforms of GTPBP2 that are expressed as a result of alternative splicing events. Since mutation of the gene encoding GTPBP1 does not lead to any phenotypic abnormalities, it is thought that there may be a genetic redundancy to make up for GTPBP1 lack-of-function. GTPBP2 shares 44% sequence similarity with GTPBP1 and also overlaps in expression pattern, suggesting that the GTPBP2 gene may compensate for GTPBP1 genetic abnormalities.

REFERENCES

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3. Senju, S., Iyama, K., Kudo, H., Aizawa, S. and Nishimura, Y. 2000. Immunocytochemical analyses and targeted gene disruption of GTPBP1. Mol. Cell. Biol. 20: 6195-6200.
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CHROMOSOMAL LOCATION

Genetic locus: GTPBP2 (human) mapping to 6p21.1; Gtpbp2 (mouse) mapping to 17 C.

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 or our catalog for detailed protocols and support products.

SOURCE

GTPBP2 (U-25) is a Protein A purified rabbit polyclonal antibody raised against synthetic GTPBP2 peptide of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

GTPBP2 (U-25) is recommended for detection of GTPBP2 of mouse, rat and human 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for GTPBP2 siRNA (h): sc-95104, GTPBP2 siRNA (m): sc-145827, GTPBP2 shRNA Plasmid (h): sc-95104-SH, GTPBP2 shRNA Plasmid (m): sc-145827-SH, GTPBP2 shRNA (h) Lentiviral Particles: sc-95104-V and GTPBP2 shRNA (m) Lentiviral Particles: sc-145827-V.

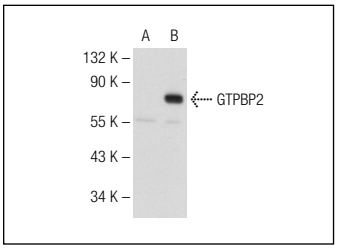
Molecular Weight of GTPBP2: 64 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or GTPBP2 (h): 293T Lysate: sc-117110.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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).

DATA



GTPBP2 (U-25): sc-133645. Western blot analysis of GTPBP2 expression in non-transfected: sc-117752 (**A**) and human GTPBP2 transfected: sc-117110 (**B**) 293T whole cell lysates.

RESEARCH USE

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