

G3BP2 (E-14): sc-161611

BACKGROUND

G3BP2 (GTPase activating protein (SH3 domain) binding protein 2) is a 482 amino acid protein that localizes to the cytoplasm and contains one NTF2 domain and one RRM domain. Existing as two alternatively spliced isoforms, G3BP2 acts as a scaffold protein that is thought to be involved in mRNA transport and is subject to post-translational methylation on select arginine residues. The gene encoding G3BP2 maps to human chromosome 4, which encodes nearly 6% of the human genome and has the largest gene deserts (regions of the genome with no protein encoding genes) of all of the human chromosomes. Defects in some of the genes located on chromosome 4 are associated with Huntington's disease, Ellis-van Creveld syndrome, methylmalonic acidemia and polycystic kidney disease.

REFERENCES

- Kennedy, D., et al. 1996. Identification of a mouse orthologue of the human Ras GAP-SH3-domain binding protein and structural confirmation that these proteins contain an RNA recognition motif. *Biomed. Pept. Proteins Nucleic Acids.* 2: 93-99.
- Prigent, M., et al. 2000. I κ B- α and I κ B- α /NF κ B complexes are retained in the cytoplasm through interaction with a novel partner, Ras GAP SH3-binding protein 2. *J. Biol. Chem.* 275: 36441-36449.
- French, J., et al. 2002. The expression of Ras GTPase activating protein SH3 domain-binding proteins, G3BPs, in human breast cancers. *Histochem. J.* 34: 223-231.
- Wu, C., et al. 2007. Systematic identification of SH3 domain-mediated human protein-protein interactions by peptide array target screening. *Proteomics* 7: 1775-1785.

CHROMOSOMAL LOCATION

Genetic locus: G3BP2 (human) mapping to 4q21.1; G3bp2 (mouse) mapping to 5 E2.

SOURCE

G3BP2 (E-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of G3BP2 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-161611 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

G3BP2 (E-14) is recommended for detection of G3BP2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with G3BP1.

Suitable for use as control antibody for G3BP2 siRNA (h): sc-89231, G3BP2 siRNA (m): sc-145289, G3BP2 shRNA Plasmid (h): sc-89231-SH, G3BP2 shRNA Plasmid (m): sc-145289-SH, G3BP2 shRNA (h) Lentiviral Particles: sc-89231-V and G3BP2 shRNA (m) Lentiviral Particles: sc-145289-V.

Molecular Weight of G3BP2: 54 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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