

HS1BP3 (N-17): sc-161716

BACKGROUND

HS1BP3 (HCLS1-binding protein 3), also known as ETM2 or HS1-BP3, is a 392 amino acid protein that contains one PX (phox homology) domain, a leucine zipper, immunoreceptor tyrosine-based inhibitory motif-like motifs and multiple proline-rich regions. Expressed primarily in brain, HS1BP3 is encoded by a gene mapping to human chromosome 2p24.1. The gene encoding HS1BP3 is frequently mutated in familial essential tremor, a disorder characterized by kinetic tremor the the hands, voice or head, though there is no correlation to Parkinson disease. HS1BP3 interacts with HAX-1's SH3 domain, and may also play a role in the regulation of catecholamine and serotonin metabolism. Acting as a regulator of IL-2 signaling, HS1BP3 is likely involved in lymphocyte activation.

REFERENCES

1. Takemoto, Y., et al. 1999. Isolation and characterization of a novel HS1 SH3 domain binding protein, HS1BP3. *Int. Immunol.* 11: 1957-1964.
2. Higgins, J.J., et al. 2005. A variant in the HS1-BP3 gene is associated with familial essential tremor. *Neurology* 64: 417-421.
3. Deng, H., et al. 2005. Extended study of A265G variant of HS1BP3 in essential tremor and Parkinson disease. *Neurology* 65: 651-652.
4. Shatunov, A., et al. 2005. A variant in the HS1-BP3 gene is associated with familial essential tremor. *Neurology* 65: 1995.
5. Higgins, J.J., et al. 2006. HS1-BP3 gene variant is common in familial essential tremor. *Mov. Disord.* 21: 306-309.
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7. Deng, H., et al. 2007. A family with Parkinson disease, essential tremor, bell palsy, and parkin mutations. *Arch. Neurol.* 64: 421-424.
8. Keeling, B.H., et al. 2009. DRD3 Ser9Gly and HS1BP3 Ala265Gly are not associated with Parkinson disease. *Neurosci. Lett.* 461: 74-75.
9. Shi, T., et al. 2011. Human HS1BP3 induces cell apoptosis and activates AP-1. *BMB Rep.* 44: 381-386.

CHROMOSOMAL LOCATION

Genetic locus: HS1BP3 (human) mapping to 2p24.1; Hs1bp3 (mouse) mapping to 12 A1.1.

SOURCE

HS1BP3 (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of HS1BP3 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-161716 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HS1BP3 (N-17) is recommended for detection of HS1BP3 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)], 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).

HS1BP3 (N-17) is also recommended for detection of HS1BP3 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for HS1BP3 siRNA (h): sc-94437, HS1BP3 siRNA (m): sc-146083, HS1BP3 shRNA Plasmid (h): sc-94437-SH, HS1BP3 shRNA Plasmid (m): sc-146083-SH, HS1BP3 shRNA (h) Lentiviral Particles: sc-94437-V and HS1BP3 shRNA (m) Lentiviral Particles: sc-146083-V.

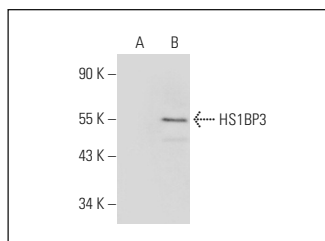
Molecular Weight of HS1BP3: 43 kDa.

Positive Controls: HS1BP3 (m2): 293T Lysate: sc-178765.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



HS1BP3 (N-17): sc-161716. Western blot analysis of HS1BP3 expression in non-transfected: sc-117752 (A) and mouse HS1BP3 transfected: sc-178765 (B) 293T 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.