

SHISA2 (K-20): sc-84642

BACKGROUND

SHISA2 (shisa family member 2), also known as TMEM46 or C13orf13, is a 295 amino acid protein encoded by a gene mapping to human chromosome 13. Comprising nearly 4% of human DNA, chromosome 13 contains around 114 million base pairs and 400 genes. Key tumor suppressor genes on chromosome 13 include the breast cancer susceptibility gene, BRCA2, and the RB1 (retinoblastoma) gene. RB1 encodes a crucial tumor suppressor protein which, when defective, leads to malignant growth in the retina and has been implicated in a variety of other cancers. The gene SLITRK1, which is associated with Tourette syndrome, is on chromosome 13. As with most chromosomes, polysomy of part or all of chromosome 13 is deleterious to development and decreases the odds of survival. Trisomy 13, also known as Patau syndrome, is quite deadly and the few who survive past one year suffer from permanent neurologic defects, difficulty eating and vulnerability to serious respiratory infections.

REFERENCES

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- Grados, M.A. and Walkup, J.T. 2006. A new gene for Tourette's syndrome: a window into causal mechanisms? *Trends Genet.* 22: 291-293.
- Bugge, M., et al. 2007. Non-disjunction of chromosome 13. *Hum. Mol. Genet.* 16: 2004-2010.
- Hsu, H.F. and Hou, J.W. 2007. Variable expressivity in Patau syndrome is not all related to trisomy 13 mosaicism. *Am. J. Med. Genet. A* 143A: 1739-1748.
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CHROMOSOMAL LOCATION

Genetic locus: SHISA2 (human) mapping to 13q12.13; Shisa2 (mouse) mapping to 14 D1.

SOURCE

SHISA2 (K-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of SHISA2 of human origin.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PRODUCT

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

Blocking peptide available for competition studies, sc-84642 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

SHISA2 (K-20) is recommended for detection of SHISA2 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).

SHISA2 (K-20) is also recommended for detection of SHISA2 in additional species, including equine and canine.

Suitable for use as control antibody for SHISA2 siRNA (h): sc-76691, SHISA2 siRNA (m): sc-154472, SHISA2 shRNA Plasmid (h): sc-76691-SH, SHISA2 shRNA Plasmid (m): sc-154472-SH, SHISA2 shRNA (h) Lentiviral Particles: sc-76691-V and SHISA2 shRNA (m) Lentiviral Particles: sc-154472-V.

Positive Controls: Hs 67 whole cell lysate.

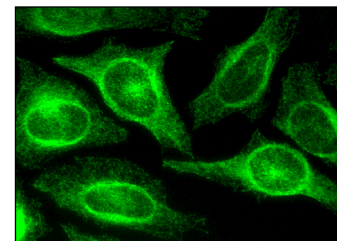
RECOMMENDED SECONDARY REAGENTS

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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



SHISA2 (K-20): sc-84642. Western blot analysis of SHISA2 expression in Hs 67 whole cell lysate.



SHISA2 (K-20): sc-84642. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

RESEARCH USE

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