

STAU2 (G-13): sc-87439

BACKGROUND

STAU2 (staufer, RNA-binding protein, homolog 2), also known as 39K2 or 39K3, is one of two vertebrate homologs of the *Drosophila* protein staufer, an RNA-binding protein that mediates mRNA transport during *Drosophila* oogenesis and zygotic development. Expressed predominantly in brain tissue and throughout neuronal development, STAU2 belongs to the double-stranded RNA-binding protein family and is believed to shuttle between the nucleus and the cytoplasm, facilitating the microtubule-dependent delivery of neuronal RNA to dendrites of polarized neurons. In addition, STAU2 can be found in ribonucleoprotein particles (RNPs) that move along microtubules into dendrites. Interference of STAU2 expression in mature neurons leads to a significant reduction in dendritic spines. This suggests that STAU2 is essential for the proper formation and maintenance of dendritic spines. Due to alternative splicing events, STAU2 exists as five different isoforms.

REFERENCES

1. Duchaine, T.F., et al. 2002. Staufen2 isoforms localize to the somatodendritic domain of neurons and interact with different organelles. *J. Cell Sci.* 115: 3285-3295.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 605920. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Macchi, P., et al. 2004. The brain-specific double-stranded RNA-binding protein staufen2: nucleolar accumulation and isoform-specific Exportin 5-dependent export. *J. Biol. Chem.* 279: 31440-31444.
4. Miki, T. and Yoneda, Y. 2004. Alternative splicing of staufen2 creates the nuclear export signal for CRM1 (Exportin 1). *J. Biol. Chem.* 279: 47473-47479.

CHROMOSOMAL LOCATION

Genetic locus: STAU2 (human) mapping to 8q21.11; Stau2 (mouse) mapping to 1 A3.

SOURCE

STAU2 (G-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of STAU2 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-87439 P, (100 µg 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.

RESEARCH USE

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

APPLICATIONS

STAU2 (G-13) is recommended for detection of STAU2 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), immunohistochemistry (including paraffin-embedded sections) (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 STAU2-2 or STAU2-4.

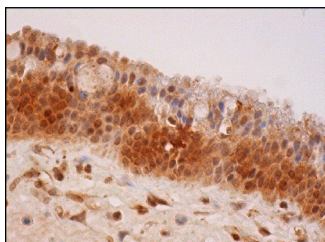
STAU2 (G-13) is also recommended for detection of STAU2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for STAU2 siRNA (h): sc-77731, STAU2 siRNA (m): sc-153882, STAU2 shRNA Plasmid (h): sc-77731-SH, STAU2 shRNA Plasmid (m): sc-153882-SH, STAU2 shRNA (h) Lentiviral Particles: sc-77731-V and STAU2 shRNA (m) Lentiviral Particles: sc-153882-V.

Molecular Weight of STAU2: 63 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409.

DATA



STAU2 (G-13): sc-87439. Immunoperoxidase staining of formalin fixed, paraffin-embedded human nasopharynx tissue showing cytoplasmic and nuclear staining of respiratory epithelial cells.

PROTOCOLS

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