

# STAU1 (P-22): sc-134042

## BACKGROUND

STAU1 (Staufen, RNA binding protein, homolog 1) is a 577 amino acid protein that contains 3 double-stranded RNA-binding domains and is a mammalian homolog of Staufen, a *Drosophila* protein that is involved in mRNA transport during oogenesis and zygotic development. Localized to the rough endoplasmic reticulum (RER) and expressed in a variety of tissues, including heart, brain, liver, lung, pancreas, kidney and placenta, STAU1 binds to both tubulin and double-stranded RNA and is thought to play an important role in mRNA transport from the microtubule network to the RER. Additionally, STAU1 may be involved in cross-linking cytoskeletal components with RNA, an event that is important for proper mRNA positioning during translation. Alternative splicing of the STAU1 gene yields two STAU1 isoforms, designated short and long.

## REFERENCES

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2. Wickham, L., et al. 1999. Mammalian staufen is a double-stranded-RNA- and Tubulin-binding protein which localizes to the rough endoplasmic reticulum. *Mol. Cell. Biol.* 19: 2220-2230.
3. Luo, M., et al. 2002. Molecular mapping of the determinants involved in human staufen-ribosome association. *Biochem. J.* 365: 817-824.
4. Brendel, C., et al. 2004. Characterization of staufen 1 ribonucleoprotein complexes. *Biochem. J.* 384: 239-246.
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6. Online Mendelian Inheritance in Man, OMIM™. 2005. Johns Hopkins University, Baltimore, MD. MIM Number: 601716. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
7. Kim, Y.K., et al. 2007. Staufen1 regulates diverse classes of mammalian transcripts. *EMBO J.* 26: 2670-2681.
8. Fa-Hui, N., et al. 2008. Characterization of a novel transcript variant of human STAU1 gene. *Acta Biochim. Pol.* 55: 473-478.
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## CHROMOSOMAL LOCATION

Genetic locus: STAU1 (human) mapping to 20q13.13.

## SOURCE

STAU1 (P-22) is a protein A purified rabbit polyclonal antibody raised against synthetic STAU1 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

STAU1 (P-22) is recommended for detection of STAU1 of human and rat 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), 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).

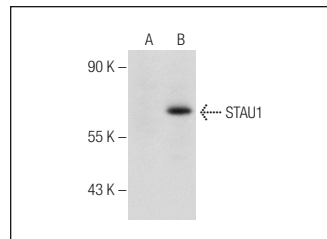
Suitable for use as control antibody for STAU1 siRNA (h): sc-76586, STAU1 shRNA Plasmid (h): sc-76586-SH and STAU1 shRNA (h) Lentiviral Particles: sc-76586-V.

Molecular Weight of STAU1 long isoform: 63 kDa.

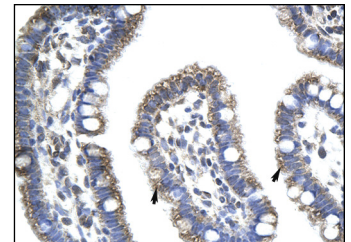
Molecular Weight of STAU1 short isoform: 55 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, Hep G2 cell lysate: sc-2227 or STAU1 (h2): 293T Lysate: sc-116129.

## DATA



STAU1 (P-22): sc-134042. Western blot analysis of STAU1 expression in non-transfected: sc-117752 (A) and human STAU1 transfected: sc-116129 (B) 293T whole cell lysates.



STAU1 (P-22): sc-134042. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human intestine tissue showing cytoplasmic localization.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

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