

STAU1 (h2): 293T Lysate: sc-116129

BACKGROUND

STAU1 (staufen, RNA binding protein, homolog 1) is a 577 amino acid protein that contains three 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

1. DesGroseillers, L., et al. 1996. Localization of a human double-stranded RNA-binding protein gene (STAU) to band 20q13.1 by fluorescence *in situ* hybridization. *Genomics* 36: 527-529.
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.
5. Kim, Y.K., et al. 2005. Mammalian staufen1 recruits Upf1 to specific mRNA 3'UTRs so as to elicit mRNA decay. *Cell* 120: 195-208.

CHROMOSOMAL LOCATION

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

PRODUCT

STAU1 (h2): 293T Lysate represents a lysate of human STAU1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

STAU1 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive STAU1 antibodies.

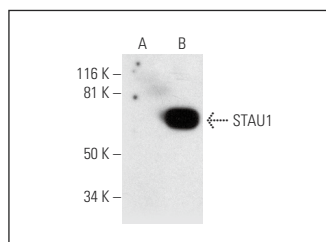
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

STAU1 (C-4): sc-390820 is recommended as a positive control antibody for Western Blot analysis of enhanced human STAU1 expression in STAU1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

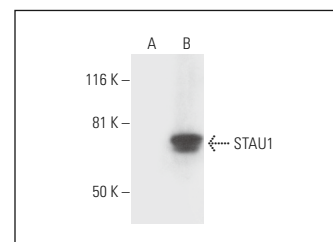
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



STAU1 (C-4): sc-390820. Western blot analysis of STAU1 expression in non-transfected: sc-117752 (A) and human STAU1 transfected: sc-116129 (B) 293T whole cell lysates.



STAU1 (H-11): sc-390992. Western blot analysis of STAU1 expression in non-transfected: sc-117752 (A) and human STAU1 transfected: sc-116129 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.