

Stra6 (N-14): sc-138063

BACKGROUND

Stimulated by retinoic acid 6 (Stra6) is a 667 amino acid, multi-pass cell membrane protein. Stra6 functions as a cell-surface receptor for the complex retinol-retinol binding protein (RBP/RBP4). Ultimately increasing cellular retinol uptake from the retinol-RBP complex, Stra6 removes retinol from RBP/RBP4 and transports it across the plasma membrane, where it is metabolized.

Stra6 is broadly expressed, with four named isoforms that exist as a result of alternative splicing events. Mutations in the gene encoding Stra6 cause Matthew-Wood Syndrome, also known as Spear Syndrome. This syndrome is characterized by anophthalmia, mild facial dysmorphism and malformations of the heart, lung and diaphragm. The Stra6 gene maps to chromosome 15q24.1.

REFERENCES

1. Szeto, W., et al. 2001. Overexpression of the retinoic acid-responsive gene STRA6 in human cancers and its synergistic induction by Wnt-1 and retinoic acid. *Cancer Res.* 61: 4197-4205.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 601186. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Pasutto, F., et al. 2007. Mutations in Stra6 cause a broad spectrum of malformations including anophthalmia, congenital heart defects, diaphragmatic hernia, alveolar capillary dysplasia, lung hypoplasia, and mental retardation. *Am. J. Hum. Genet.* 80: 550-560.
4. Golzio, C., et al. 2007. Matthew-Wood syndrome is caused by truncating mutations in the retinol-binding protein receptor gene STRA6. *Am. J. Hum. Genet.* 80: 1179-1187.
5. Blaner, W.S. 2007. Stra6, a cell-surface receptor for retinol-binding protein: the plot thickens. *Cell Metab.* 5: 164-166.
6. Kawaguchi, R., et al. 2007. A membrane receptor for retinol binding protein mediates cellular uptake of vitamin A. *Science* 315: 820-825.
7. Kawaguchi, R., et al. 2008. Mapping the membrane topology and extracellular ligand binding domains of the retinol binding protein receptor. *Biochemistry* 47: 5387-5395.
8. Isken, A., et al. 2008. RBP4 disrupts vitamin A uptake homeostasis in a Stra6-deficient animal model for Matthew-Wood syndrome. *Cell Metab.* 7: 258-268.

CHROMOSOMAL LOCATION

Genetic locus: STRA6 (human) mapping to 15q24.1.

SOURCE

Stra6 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of Stra6 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 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-138063 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Stra6 (N-14) is recommended for detection of Stra6 of 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with Stra8 or Stra13.

Stra6 (N-14) is also recommended for detection of Stra6 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for Stra6 siRNA (h): sc-89991, Stra6 shRNA Plasmid (h): sc-89991-SH and Stra6 shRNA (h) Lentiviral Particles: sc-89991-V.

Molecular Weight of Stra6: 74 kDa.

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) 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.

RESEARCH USE

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

PROTOCOLS

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