10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

STRA6 Rabbit pAb

STRA6 Rabbit pAb
Catalog # AP53263

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9BX79
Reactivity	Human
Predicted	Mouse, Rat, Dog, Horse, Rabbit
Host	Rabbit
Clonality	Polyclonal
Calculated MW	73503
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from Human STRA6
Epitope Specificity	151-250/667
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cell membrane; multi-pass membrane protein.
DISEASE	Defects in STRA6 are the cause of microphthalmia syndromic type 9 (MCOPS9) [MIM:601186]; also called Matthew-Wood syndrome or Spear syndrome. Microphthalmia is a clinically heterogeneous disorder of eye formation, ranging from small size of a single eye to complete bilateral absence of ocular tissues (anophthalmia). In many cases, microphthalmia/anophthalmia occurs in association with syndromes that include non-ocular abnormalities. MCOPS9 is a rare clinical entity including as main characteristics anophthalmia or severe microphthalmia, and pulmonary hypoplasia or aplasia. Note=Mutations in STRA6 may be a cause of isolated colobomatous microphthalmia, a disorder of the eye characterized by an abnormally small ocular globe.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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/RPB4 and transports it across the plasma membrane, where it is metabolized. Stra6 is broadly expressed, with 4 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 anophtalmia, mild facial dysmorphism and malformations of the heart, lung and diaphragm. The Stra6 gene maps to chromosome 15q24.1.

Additional Information

Gene ID	64220

Other Names	Receptor for retinol uptake STRA6, Retinol-binding protein receptor STRA6, Stimulated by retinoic acid gene 6 protein homolog, STRA6
Target/Specificity	Broad expression. In adult eye expressed in sclera, retina, retinal pigment epithelium, and trabecular meshwork but not in choroid and iris.
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

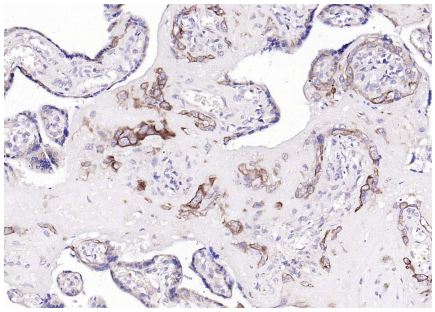
Name	STRA6
Function	Functions as a retinol transporter. Accepts all-trans retinol from the extracellular retinol-binding protein RBP4, facilitates retinol transport across the cell membrane, and then transfers retinol to the cytoplasmic retinol-binding protein RBP1 (PubMed:18316031, PubMed:22665496, PubMed:9452451). Retinol uptake is enhanced by LRAT, an enzyme that converts retinol to all-trans retinyl esters, the storage forms of vitamin A (PubMed:18316031, PubMed:22665496). Contributes to the activation of a signaling cascade that depends on retinol transport and LRAT-dependent generation of retinol metabolites that then trigger activation of JAK2 and its target STAT5, and ultimately increase the expression of SOCS3 and inhibit cellular responses to insulin (PubMed:21368206, PubMed:22665496). Important for the homeostasis of vitamin A and its derivatives, such as retinoic acid (PubMed:18316031). STRA6-mediated transport is particularly important in the eye, and under conditions of dietary vitamin A deficiency (Probable). Does not transport retinoic acid (PubMed:18316031).
Cellular Location	Cell membrane; Multi-pass membrane protein. Note=In the retinal pigment epithelium localizes to the basolateral membrane. {ECO:0000250|UniProtKB:Q0V8E7}
Tissue Location	Broad expression. In adult eye expressed in sclera, retina, retinal pigment epithelium, and trabecular meshwork but not in choroid and iris.

Background

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/RPB4 and transports it across the plasma membrane, where it is metabolized. Stra6 is broadly expressed, with 4 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 anophtalmia, mild facial dysmorphism and malformations of the heart, lung and diaphragm. The Stra6 gene maps to chromosome 15q24.1.

Images

Paraformaldehyde-fixed, paraffin embedded (human placenta); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer



(normal goat serum) at 37°C for 30min; Antibody incubation with (STRA6) Polyclonal Antibody, Unconjugated (AP53263) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.