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Rabbit Polyclonal Anti-Stra6 antibody

Catalog Number: STRA6-112AP

Lot Number:

General Information

Product	Stra6 Antibody
Description	Retinoic acid-responsive protein Antibody Affinity Purified
Accession #	Uniprot: O70491 GenBank: BAB14122.1
Verified Applications	ELISA, IP, WB
Species Cross Reactivity	Human, Monkey
Host	Rabbit
Immunogen	Synthetic peptide taken within third large intra-cytoplasmic loop within amino acid region 450-500 on human Stra6 protein.
Alternative Nomenclature	MCOPCB8 antibody, MCOPS9 antibody, PP14296 antibody, Stimulated by retinoic acid 6 homolog antibody, STRA6 antibody

Physical Properties

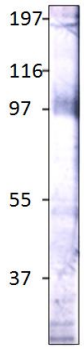
Quantity	100 µg
Volume	200 µl
Form	Affinity Purified Immunoglobulins
Immunoglobulin & Concentration	0.69 mg/ml IgG in antibody stabilization buffer
Storage	Store at -20ºC for long term storage.

Recommended Dilutions

DOT Blot	1:10,000
ELISA	1:10,000
Immunoprecipitation	1:200
Western Blot	1:500

Related Products	Catalog #
Mouse, Rat Specific Stra6 antibody	STRA6-101AP
BIOTIN-Conjugated	STRA6.h-BIOTIN
FITC-Conjugated	STRA6.h-FITC
Antigenic Blocking Peptide	P-STRA6.h
Western Blot Positive Control	PC-STRA6

Application Verification:



WB of STRA6-112AP with PC-STRA6. 1:500 antibody dilution in DiluObuffer. Apparent MW is 99 kDa.

Dilutions are for reference only. Applications not listed above are not necessarily precluded from working with this antibody. Investigators intending to use an application that has not been verified can request a complimentary sample.

Overview:

Stra6 gene encodes a membrane bound retinoic acid sensitive protein that facilitates the transport of vitamin A through its soluble retinol binding protein complex. The transcription of Stra6 is directly regulated by the cellular levels of retinoic acid, which is a strong teratogen when exposed at elevated concentrations during early embryogenesis. The Stra6 gene was studied in two human fetuses from consanguineous families with Matthew-Wood syndrome. These subjects exhibited severe microphthalmia, pulmonary agenesis, bilateral diaphragmatic eventration, duodenal stenosis, pancreatic malformations, and intrauterine growth retardation (1). Increasing evidence suggests that retinoic acid is a crucial signaling molecule during vertebrate development. Several studies were initiated to systematically isolate the genes whose expression is induced by retinoic acid treatment at various exposure times. Several genes are induced in Pluripotent mouse P19 embryonal carcinoma cells (P19EC) retinoic acid treatment. At least 50 different cDNA fragments corresponding to retinoic acid-induced genes were isolated. Six of them are known proteins, four of which are described as retinoic acid inducible, while the remaining 40 are unknown and novel genes. Two of these unknown novel genes are Stra1 and Stra6. Stra1 corresponds to the mouse ligand for Cek5 receptor protein tyrosine kinase and Stra6 is a vitamin A transporter (1). Stra6 is a membrane bound protein containing 10 transmembrane domains characteristic of solute carrier proteins. Stra6 protein is expressed in various tissues including fibroblasts and eye. A detailed analysis of distinct parts of an adult eye revealed expression in sclera, retina, retinal pigment epithelium and trabecular meshwork, but not in choroid and iris (2). A number of mutations in the Stra6 (chromosome 15) gene have been studied. A homozygous deletion generating a premature stop codon that led to absence of the immunoreactive protein in patient fibroblasts culture and three miss-sense mutations (P90L, P293L and T321P) caused significant alteration in the geometry of the loops connecting the transmembrane helices of Stra6. Two other mutations in the C-terminal region caused aberration in the SH2 binding motifs and in the phosphorylation of the Stra67 protein (2). Patients with these mutations show anophthalmia and distinct eyebrows as common signs along with alveolar dysplasia or a common congenital heart defect and diaphragmatic hernia.

Stra6 is a 99 kDa membrane bound protein with 10 TMD as commonly seen in all membrane transporter proteins. The Stra6 selective-antibodies were generated against conserved sequences from rat and human (STRA6-101AP or SRA6-112AP) Stra6 protein that are unique to either rat or human stra6 protein. FabGennix employs cyclic peptide methodology for generating antibodies, which results in higher titer and specificity. The Stra6-selective antibodies are affinity purified against immobilized antigen based affinity chromatography which yielded epitope-specific antibodies. The Stra6 antibodies label a 99 kDa protein in Western blot using Western blot positive control for Stra6 (PC-STRA6). *FabGennix* will conjugate antibodies with various fluorescent probes or secondary enzymes upon request at nominal charge. Limited quantities of antigenic blocking peptide are available. *FabGennix* also provides antibodies to various eye related proteins and as well as other targets. For a complete listing of all antibodies and lab services, please visit http://fabgennix.com.

References:

1. Bouillet P, Oulad-Abdelghani M, Vicaire S, Garnier JM, Schuhbaur B, Dollé P, Chambon P. Efficient cloning of cDNAs of retinoic acid-responsive genes in P19 embryonal carcinoma cells and characterization of a novel mouse gene, Stra1 (mouse LERK-2/Eplg2). Dev Biol. 1995 Aug;170(2):420-33.
2. Golzio C, Martinovic-Bouriel J, Thomas S, Mougou-Zrelli S, Grattagliano-Bessieres B, Bonniere M, Delahaye S, Munnich A, Encha-Razavi F, Lyonnet S, Vekemans M, Attie-Bitach T, Etchevers HC. Matthew-Wood syndrome is caused by truncating mutations in the retinol-binding protein receptor gene STRA6. Am J Hum Genet. 2007 Jun;80(6):1179-87. Epub 2007 Apr 11. Links

* For users who may require large amounts of the products listed above, please inquire about bulk material discounts.
This Product is for Research Use Only and is NOT intended for use in humans or clinical diagnosis.