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RS1 Rabbit pAb

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Catalog # AP57280

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	O15537
Predicted	Rat, Dog, Human, Mouse, Chicken, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	25592
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human RS1
Epitope Specificity	101-200/224
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	Secreted.
DISEASE	Defects in RS1 are the cause of retinoschisis juvenile X-linked type 1 (XLRS1) [MIM:312700]. A vitreo-retinal dystrophy characterized by macular pathology and by splitting of the superficial layer of the retina. Macular changes are present in almost all cases. In the fundi, radially oriented intraretinal foveomacular cysts are seen in a spoke-wheel configuration, with the absence of foveal reflex in most cases. In addition, approximately half of cases have bilateral peripheral retinoschisis in the inferotemporal part of the retina. Aside from the typical fundus appearance, strabismus, nystagmus, axial hyperopia, defective color vision and foveal ectopy can be present. The most important complications are vitreous hemorrhage, retinal detachment, and neovascular glaucoma.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes an extracellular protein that plays a crucial role in the cellular organization of the retina. The encoded protein is assembled and secreted from photoreceptors and bipolar cells as a homo-oligomeric protein complex. Mutations in this gene are responsible for X-linked retinoschisis, a common, early-onset macular degeneration in males that results in a splitting of the inner layers of the retina and severe loss in vision. [provided by RefSeq, Oct 2008]

Additional Information

Gene ID	6247
Other Names	Retinoschisin, X-linked juvenile retinoschisis protein, RS1, XLRS1
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:500

	0-10000
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	RS1
Synonyms	XLRS1
Function	Binds negatively charged membrane lipids, such as phosphatidylserine and phosphoinositides (By similarity). May play a role in cell-cell adhesion processes in the retina, via homomeric interaction between octamers present on the surface of two neighboring cells (PubMed:27114531). Required for normal structure and function of the retina (PubMed:19093009).
Cellular Location	Secreted. Cell membrane {ECO:0000250|UniProtKB:Q9Z1L4}; Peripheral membrane protein {ECO:0000250|UniProtKB:Q9Z1L4}; Extracellular side {ECO:0000250|UniProtKB:Q9Z1L4}. Note=Binds to phosphatidylserine-containing lipid membranes and embeds itself partially into the lipid bilayer. Lipid-binding requires the presence of Ca(2+) ions {ECO:0000250|UniProtKB:Q9Z1L4}
Tissue Location	Restricted to the retina (at protein level) (PubMed:10915776). Detected in the inner segment of the photoreceptors, the inner nuclear layer, the inner plexiform layer and the ganglion cell layer (at protein level). At the macula, expressed in both the outer and inner nuclear layers and in the inner plexiform layer (at protein level) (PubMed:10915776). Detected in retina (PubMed:9326935) Detected only within the photoreceptor cell layer, most prominently within the inner segments of the photoreceptors (PubMed:10915776) Undetectable in the inner plexiform layers and the inner nuclear layer (PubMed:10915776).

Background

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