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IMPG2 Rabbit pAb

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Catalog # AP56337

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	Q9BZV3
Predicted	Human, Mouse, Rat, Rabbit, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	138621
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human IMPG2
Epitope Specificity	951-1050/1241
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	Membrane; Single pass type I membrane protein
SIMILARITY	Contains 2 EGF-like domains.Contains 2 SEA domains.
Post-translational modifications	Highly glycosylated (N- and O-linked carbohydrates).
DISEASE	Retinitis pigmentosa 56 (RP56) [MIM:613581]: A retinal dystrophy belonging to the group of pigmentary retinopathies. Retinitis pigmentosa is characterized by retinal pigment deposits visible on fundus examination and primary loss of rod photoreceptor cells followed by secondary loss of cone photoreceptors. Patients typically have night vision blindness and loss of midperipheral visual field. As their condition progresses, they lose their far peripheral visual field and eventually central vision as well. Note=The disease is caused by mutations affecting the gene represented in this entry.Maculopathy, IMPG2-related (MACLP-IMPG2) [MIM:613581]: A mild maculopathy characterized by full-field electroretinogram responses within normal limits, normal color vision, elevation of the photoreceptor layer in the foveal region and mild nuclear sclerosis. Note=The disease is caused by mutations affecting the gene represented in this entry.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The protein encoded by this gene binds chondroitin sulfate and hyaluronan and is a proteoglycan. The encoded protein plays a role in the organization of the interphotoreceptor matrix and may promote the growth and maintenance of the light-sensitive photoreceptor outer segment. Defects in this gene are a cause of retinitis pigmentosa type 56 and maculopathy, IMPG2-related.[provided by RefSeq, Mar 2011]

Additional Information

Gene ID	50939

Other Names	Interphotoreceptor matrix proteoglycan 2, Interphotoreceptor matrix proteoglycan of 200 kDa, IPM 200, Sialoprotein associated with cones and rods proteoglycan, Spacrcan, IMPG2, IPM200
Target/Specificity	Expressed in the retina. Expressed by photoreceptors of the interphotoreceptor matrix (IPM) surrounding both rods and cones. IPM occupies the subretinal space between the apices of the retinal pigment epithelium and the neural retina. Detected in the pineal gland.
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
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	IMPG2
Synonyms	IPM200
Function	Chondroitin sulfate- and hyaluronan-binding proteoglycan involved in the organization of interphotoreceptor matrix; may participate in the maturation and maintenance of the light-sensitive photoreceptor outer segment. Binds heparin.
Cellular Location	Photoreceptor outer segment membrane; Single-pass type I membrane protein. Photoreceptor inner segment membrane {ECO:0000250|UniProtKB:Q80XH2}; Single-pass type I membrane protein. Secreted, extracellular space, extracellular matrix, interphotoreceptor matrix
Tissue Location	Expressed in the retina (at protein level) (PubMed:10702256, PubMed:29777959). Expressed by photoreceptors of the interphotoreceptor matrix (IPM) surrounding both rods and cones (at protein level) (PubMed:10542133, PubMed:29777959). IPM occupies the subretinal space between the apices of the retinal pigment epithelium and the neural retina (PubMed:10542133). Expressed in the pineal gland (at protein level) (PubMed:10702256).

Background

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