

RP1 Rabbit pAb

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Catalog # AP54350

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	P56715
Predicted	Rat, Dog, Human, Mouse, Rabbit, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	240661
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human RP1/DCDC4A
Epitope Specificity	451-550/2156
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	Cytoplasm; cytoskeleton; cilium axoneme. Cell projection; cilium; photoreceptor outer segment. Specifically localized in the connecting cilia of rod and cone photoreceptors.
DISEASE	Defects in RP1 are the cause of retinitis pigmentosa type 1 (RP1) [MIM:180100]. RP leads to degeneration of retinal photoreceptor cells. 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.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Retinitis pigmentosa 1 is a novel 2,156 amino acid oxygen-regulated photoreceptor specific to retina. Originally named ORP1 (for 'oxygen-regulated protein-1'), the expression of retinitis pigmentosa 1 has been found to be regulated by oxygen levels in the retina. Mutation of the retinitis pigmentosa 1 gene causes dominant retinitis pigmentosa which leads to degeneration of retinal photoreceptor cells and symptoms such as night vision blindness and deficits in the midperipheral visual field. Retinitis pigmentosa 1 may assist in differentiation of photoreceptor cells and has been identified in the cilia of photoreceptors, possibly aiding in both ciliary structure and protein transport between inner and outer segments of photoreceptors. Retinitis pigmentosa 1 contains two doublecortin domains and is encoded by a gene which maps to human chromosome 8q11-q13.

Additional Information

Gene ID	6101
Other Names	Oxygen-regulated protein 1, Retinitis pigmentosa 1 protein, Retinitis pigmentosa RP1 protein, RP1, ORP1

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	RP1
Synonyms	ORP1
Function	Microtubule-associated protein regulating the stability and length of the microtubule-based axoneme of photoreceptors. Required for the differentiation of photoreceptor cells, it plays a role in the organization of the outer segment of rod and cone photoreceptors ensuring the correct orientation and higher-order stacking of outer segment disks along the photoreceptor axoneme (By similarity).
Cellular Location	Cytoplasm, cytoskeleton, cilium axoneme. Cell projection, cilium, photoreceptor outer segment. Note=Specifically localized in the connecting cilia of rod and cone photoreceptors
Tissue Location	Expressed in retina. Not expressed in heart, brain, placenta, lung, liver, skeletal muscle, kidney, spleen and pancreas

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Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.