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RP1 Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP54350

Specification

RP1 Polyclonal Antibody - Product Information

Application	**IHC-P, IHC-F, IF, ICC, E**
Primary Accession	P56715
Reactivity	**Rat, Dog**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**241 KDa**
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.**
SIMILARITY	**Contains 2 doublecortin domains.**
SUBUNIT	**Interacts (via the doublecortin domains) with microtubules. Interacts with RP1L1 (By similarity). Interacts with MAK (By similarity).**
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 cilial 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.

RP1 Polyclonal Antibody - Additional Information

Gene ID 6101

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

Target/Specificity
Expressed in retina. Not expressed in heart, brain, placenta, lung, liver, skeletal muscle, kidney, spleen and pancreas.

Dilution
IHC-P~~N/A<br \>IHC-F~~N/A<br \>IF~~1:50~200<br \>ICC~~N/A<br \>E~~N/A

Storage
Store at -20 ℃ 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 ℃.

RP1 Polyclonal Antibody - 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

RP1 Polyclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

RP1 Polyclonal Antibody - Images