

Product Datasheet

Rhodopsin Antibody: APC (orb147754)

Description	Mouse monoclonal to Rhodopsin (APC). Rhodopsin consists of the protein moiety opsin and a reversibly covalently bound cofactor, retinal. Opsin, a bundle of seven membrane embedded alpha-helices, binds retinal, a photo reactive chromophore, in a central pocket. In addition to being the pigment of the retina that is responsible for both the formation of the photoreceptor cells, its function is to specifically convey information stored in the specific geometry of the chromophore to the surface of the molecule upon light absorption. In the active state, rhodopsin activates transduction, a GTP binding protein. Once activated, transduction promotes the hydrolysis of cGMP by phosphodiesterase. Rhodopsins activity is believed to be shut off by its phosphorylation followed by binding of the soluble protein arrestin. Mutations in the rhodopsin gene lead to retinitis pigmentosa, which can be inherited as an autosomal dominant, an autosomal recessive or an X-linked recessive disorder..
Species/Host	Mouse
Reactivity	Vertebrate
Conjugation	APC
Tested Applications	ICC, IF, IHC
Immunogen	Bovine Rhodopsin
Target	Rhodopsin
Preservatives	95.64mM Phosphate, 2.48mM MES and 2mM EDTA
Concentration	1 mg/ml
Storage	Conjugated antibodies should be stored according to the product label
Note	For research use only
Application notes	1 µg/ml of SMC-177 was sufficient for detection of rhodopsin in 10 µg of rat eye lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

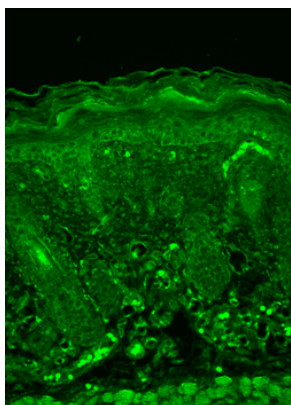
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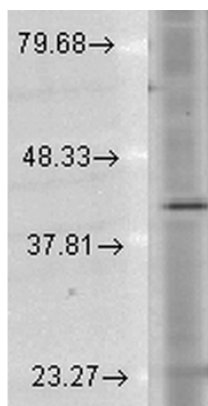
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Isotype	IgG1
Clonality	Monoclonal
Clone Number	1D4
MW	40kDa
Uniprot ID	P02699
NCBI	NP_001014890.1
Entrez	509933
Dilution Range	WB (1:1000), IHC (1:100)
Expiration Date	12 months from date of receipt.



Immunohistochemistry analysis using Mouse Anti-Rhodopsin Monoclonal Antibody, Clone 1D4. Tissue: backskin. Species: Mouse. Fixation: Bouin's Fixative and paraffin-embedded. Primary Antibody: Mouse Anti-Rhodopsin Monoclonal Antibody at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT. Localization: Dull epidermal staining.



Western Blot analysis of Human Cell lysates showing detection of Rhodopsin protein using Mouse Anti-Rhodopsin Monoclonal Antibody, Clone 1D4. Load: 15 µg. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-Rhodopsin Monoclonal Antibody at 1:1000 for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT.

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