

#27182 Store at -20°C

Rhodopsin (D4B9B) Rabbit mAb



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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: IHC-P, IF-F	Reactivity: H M R	Sensitivity: Endogenous	Source/Isotype: Rabbit IgG	UniProt ID: #P08100	Entrez-Gene Id: 6010
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Product Usage Information	Application Immunohistochemistry (Paraffin) Immunofluorescence (Frozen)	Dilution 1:1000 1:400
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.	
Specificity / Sensitivity	Rhodopsin (D4B9B) Rabbit mAb recognizes endogenous levels of total rhodopsin protein.	
Source / Purification	Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Leu194 of human rhodopsin protein.	
Background	Rhodopsin is the photoreceptor in the retinal rods. It is activated by photons, transduces visual information through its cognate G protein, transducin, and is inactivated by arrestin binding (1). Using atomic-force microscopy, rhodopsin was found to be arranged into paracrystalline arrays of dimers in mouse disc membranes (2). Rhodopsin is considered to be the prototype of G protein-coupled receptors (GPCRs), and is the first GPCR for which a crystal structure was solved (3). Research studies have linked mutations in the gene encoding rhodopsin to retinitis pigmentosa (4,5), a disease characterized by retinal degeneration resulting in reduced peripheral vision and night blindness (6).	
Background References	1. Arshavsky, V.Y. and Burns, M.E. (2012) <i>J Biol Chem</i> 287, 1620-6. 2. Fotiadis, D. et al. (2003) <i>Nature</i> 421, 127-8. 3. Palczewski, K. et al. (2000) <i>Science</i> 289, 739-45. 4. Rivolta, C. et al. (2002) <i>Hum Mol Genet</i> 11, 1219-27. 5. Wilson, J.H. and Wensel, T.G. (2003) <i>Mol Neurobiol</i> 28, 149-58. 6. Hartong, D.T. et al. (2006) <i>Lancet</i> 368, 1795-809.	

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Applications Key	IHC-P: Immunohistochemistry (Paraffin) IF-F: Immunofluorescence (Frozen)
Cross-Reactivity Key	H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse GP: Guinea Pig Rab: rabbit All: all species expected
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