

#14825 Store at -20°C

Rhodopsin (D1N7X) Rabbit mAb

**Cell Signaling**
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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	M R	Endogenous	37, 75, 150	Rabbit IgG	#P08100	6010

Product Usage Information**Application**

Western Blotting

Dilution

1:1000

Immunoprecipitation

1:50

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 (D1N7X) Rabbit mAb recognizes endogenous levels of total rhodopsin protein.

Species predicted to react based on 100% sequence homology:

Human

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus 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) *J Biol Chem* 287, 1620-6.
2. Fotiadis, D. et al. (2003) *Nature* 421, 127-8.
3. Palczewski, K. et al. (2000) *Science* 289, 739-45.
4. Rivolta, C. et al. (2002) *Hum Mol Genet* 11, 1219-27.
5. Wilson, J.H. and Wensel, T.G. (2003) *Mol Neurobiol* 28, 149-58.
6. Hartong, D.T. et al. (2006) *Lancet* 368, 1795-809.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key**WB:** Western Blotting **IP:** Immunoprecipitation**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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