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Anti-Rhodopsin Antibody

Our Anti-Rhodopsin primary antibody from PhosphoSolutions is mouse monoclonal. It detects amphibians
Catalog # AN1543

Product Information

Application	WB, IHC
Primary Accession	P02699
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Clone Names	1D4
Calculated MW	39008

Additional Information

Gene ID	509933
Other Names	CSNBAD1 antibody, MGC138309 antibody, MGC138311 antibody, OPN 2 antibody, OPN2 antibody, opsd antibody, OPSD_HUMAN antibody, opsin 2 antibody, Opsin 2 rod pigment antibody, Opsin-2 antibody, Opsin2 antibody, Retinitis Pigmentosa 4 antibody, Retinitis pigmentosa 4 autosomal dominant antibody, RHO antibody, Rhodopsin antibody, RP 4 antibody, RP4 antibody
Target/Specificity	Rhodopsin is a photoreceptor protein found in retinal rods. It is a complex formed by the binding of retinaldehyde, the oxidized form of retinol, to the protein opsin and undergoes a series of complex reactions in response to visible light resulting in the transmission of nerve impulses to the brain. Mutation of the rhodopsin gene is a major contributor to various retinopathies such as retinitis pigmentosa. The disease-causing protein generally aggregates with ubiquitin in inclusion bodies, disrupts the intermediate filament network and impairs the ability of the cell to degrade non-functioning proteins which leads to photoreceptor apoptosis (Berson et al., 1991). Other mutations on rhodopsin lead to X-linked congenital stationary night blindness, mainly due to constitutive activation, when the mutations occur around the chromophore binding pocket of rhodopsin (Dryja et al.,1993). Several other pathological states relating to rhodopsin have been discovered including poor post-Golgi trafficking, dysregulative activation, rod outer segment instability and arrestin binding.
Dilution	WB~~1:1000 IHC~~1:100~500
Format	Protein G Purified
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Anti-Rhodopsin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping	Blue Ice

Background

Rhodopsin is a photoreceptor protein found in retinal rods. It is a complex formed by the binding of retinaldehyde, the oxidized form of retinol, to the protein opsin and undergoes a series of complex reactions in response to visible light resulting in the transmission of nerve impulses to the brain. Mutation of the rhodopsin gene is a major contributor to various retinopathies such as retinitis pigmentosa. The disease-causing protein generally aggregates with ubiquitin in inclusion bodies, disrupts the intermediate filament network and impairs the ability of the cell to degrade non-functioning proteins which leads to photoreceptor apoptosis (Berson et al., 1991). Other mutations on rhodopsin lead to X-linked congenital stationary night blindness, mainly due to constitutive activation, when the mutations occur around the chromophore binding pocket of rhodopsin (Dryja et al.,1993). Several other pathological states relating to rhodopsin have been discovered including poor post-Golgi trafficking, dysregulative activation, rod outer segment instability and arrestin binding.