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Datasheet for ABIN361366

anti-Rho-related GTP-binding protein antibody

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Overview

Quantity:	100 µL
Target:	Rho-related GTP-binding protein (RhO (pan))
Reactivity:	Cow
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This Rho-related GTP-binding protein antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC)

Product Details

Immunogen:	Purified native bovine rhodopsin
Clone:	1D4
Isotype:	IgG1
Specificity:	Specific for the ~ 39k rhodopsin protein.
Cross-Reactivity:	Amphibian, Mammalian
Purification:	Protein G purified culture supernatant

Target Details

Target:	Rho-related GTP-binding protein (RhO (pan))
Alternative Name:	RHO (RhO (pan) Products)
Target Type:	Chemical

Target Details

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. Anti-Rhodopsin Immunohistochemical staining of mouse retinal section showing specific immunolabeling of the rhodopsin protein in the rod spherules. Photo courtesy of Mary Raven, University of California, Santa Barbara, CA.

Molecular Weight: 39 kDa

Gene ID: 509933

UniProt: [P02699](#)

Application Details

Application Notes: Recommended Dilution: WB: 1:1000 IHC: 1:100 Quality Control: Western blots performed on each lot.

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: 100 µL in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg per ml BSA and 50 % glycerol.

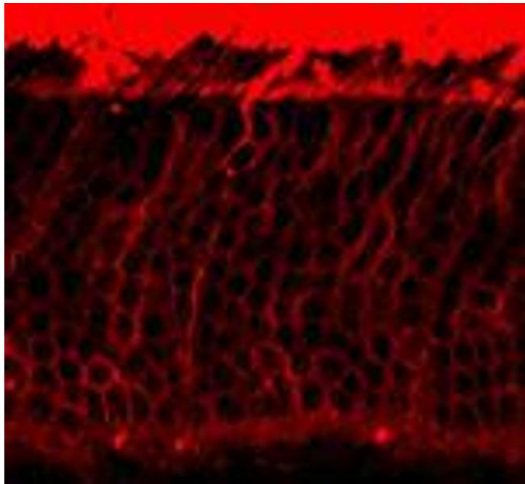
Storage: -20 °C

Publications

Product cited in: Vendramin, Verheyden, Ishikawa, Goedert, Nicolas, Saraf, Armaos, Delli Ponti, Izumikawa, Mestdagh, Lafontaine, Tartaglia, Takahashi, Marine, Leucci: "SAMMSON fosters cancer cell

fitness by concertedly enhancing mitochondrial and cytosolic translation." in: **Nature structural & molecular biology**, Vol. 25, Issue 11, pp. 1035-1046, (2019) ([PubMed](#)).

Langhendries, Nicolas, Doumont, Goldman, Lafontaine: "The human box C/D snoRNAs U3 and U8 are required for pre-rRNA processing and tumorigenesis." in: **Oncotarget**, Vol. 7, Issue 37, pp. 59519-59534, (2018) ([PubMed](#)).



Immunohistochemistry

Image 1. Immunohistochemical staining of mouse retinal section showing specific immunolabeling of the rhodopsin protein in the rod spherules. Photo courtesy of Mary Raven, University of California, Santa Barbara, CA.