

## Anti-Rhodopsin [Rho 1D4] Standard Size Ab00337-10.3

This antibody was created using our proprietary Fc Silent™ engineered Fc domain containing key point mutations that abrogate binding to Fc gamma receptors.

This chimeric human antibody was made using the variable domain sequences of the original mouse IgG1 format for improved compatibility with existing reagents, assays and techniques.

**Isotype and Format:** Human IgG1, Fc Silent™, Kappa

**Clone Number:** Rho 1D4

**Alternative Name(s) of Target:** Rho-tag; Visual Purple

**UniProt Accession Number of Target Protein:** P08100

**Published Application(s):** IP, Radioimmune labeling, WB, ELISA, IF, IHC

**Published Species Reactivity:** Cow, Human, Zebrafish, Amphibians, Rat, Mouse

**Immunogen:** Bleached bovine rod outer segment (ROS).

**Specificity:** The antibody binds to the C-terminus of rhodopsin on the cytoplasmic side of disk membranes. The epitope has the following amino acid sequence: 'TETSQVAPA'. A limitation of the 1D4 tag, however, is that it has to be placed at the C-terminus of a protein. This is because the Rho1D4 monoclonal antibody requires a free carboxylate group for high affinity binding. Amidation of the carboxyl group lowers its immunoreactivity to the Rho1D4 antibody by over 100 fold.

**Application Notes:** The antibody binds to the C-terminus of rhodopsin on the cytoplasmic side of disk membranes. Rhodopsin is the major pigment in rod photoreceptors and belongs to the family of G-protein-coupled receptors (GPCRs). The linear epitope (TETSQVAPA) can be used as a protein tag.

**Antibody First Published in:** Molday et al. 1983 Monoclonal antibodies to rhodopsin: characterization, cross-reactivity, and application as structural probes. Biochemistry, 1983; 22(3):653-660 [PMID:6188482](#)

**Note on publication:** Describes the generation of two monoclonal antibodies from hybridoma.

## Product Form

**Size:** 200 µg Purified antibody.

**Purification:** Protein A affinity purified

**Supplied In:** PBS with 0.02% Proclin 300.

**Storage Recommendation:** Store at 4°C for up to 3 months. For longer storage, aliquot and store at -

20°C.

**Concentration:** 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.