abcam

Product datasheet

Rhodopsin peptide ab4967

2 References

Description

Product name	Rhodopsin peptide
Purity	> 70 % HPLC. Peptides are analyzed by Reverse-Phase HPLC (RP-HPLC) in order to determine purity. Identities are confirmed by MALDI-MS.
Animal free	No
Nature	Synthetic

Specifications

Our **Abpromise guarantee** covers the use of **ab4967** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	Blocking
Form	Lyophilized
Additional notes	This peptide may be used for neutralization and control experiments with the polyclonal antibody that reacts with this product and bovine rhodopsin, catalog **ab3424**. Using a solution of peptide of equal volume and concentration to the corresponding antibody will yield a large molar excess of peptide (~ 70-fold) for competitive inhibition of antibody-protein binding reactions.

Preparation and Storage

Stability and Storage	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Store at -20°C or -80°C. Avoid freeze / thaw cycle.
Reconstitution	>95% pure, lyophilized synthetic peptide. Reconstitute with 0.1 ml of distilled water.

General Info

Function	Photoreceptor required for image-forming vision at low light intensity. Required for photoreceptor cell viability after birth. Light-induced isomerization of 11-cis to all-trans retinal triggers a conformational change leading to G-protein activation and release of all-trans retinal.
Tissue specificity	Rod shaped photoreceptor cells which mediates vision in dim light.

Involvement in disease	Retinitis pigmentosa 4 Night blindness, congenital stationary, autosomal dominant 1
Sequence similarities	Belongs to the G-protein coupled receptor 1 family. Opsin subfamily.
Post-translational modifications	Phosphorylated on some or all of the serine and threonine residues present in the C-terminal region. Contains one covalently linked retinal chromophore.
Cellular localization	Membrane. Synthesized in the inner segment (IS) of rod photoreceptor cells before vectorial transport to the rod outer segment (OS) photosensory cilia.

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