abcam

Product datasheet

Anti-Rhodopsin antibody [EPR21876] - BSA and Azide free ab232934

Recombinant RabMAb

6 Images

Overview

Product name	Anti-Rhodopsin antibody [EPR21876] - BSA and Azide free
Description	Rabbit monoclonal [EPR21876] to Rhodopsin - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** WB, IHC-P, IHC-Fr, IP
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide within Mouse Rhodopsin aa 1 to the C-terminus. The exact sequence is proprietary. Database link: P15409
Positive control	IHC-P: Human retina tissue.
General notes	Ab232934 is the carrier-free version of ab221664. This format is designed for use in antibody labeling, including fluorochromes, metal isotopes, oligonucleotides, enzymes. Our carrier-free formats are supplied in a buffer free of BSA, sodium azide and glycerol for higher conjugation efficiency. Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with <1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold. ab232934 is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm. *Maxpar® is a trademark of Fluidigm Canada Inc.* This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information see here. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR21876
Isotype	IgG

Applications

Our Abpromise guarantee covers the use of **ab232934** in the following tested applications.

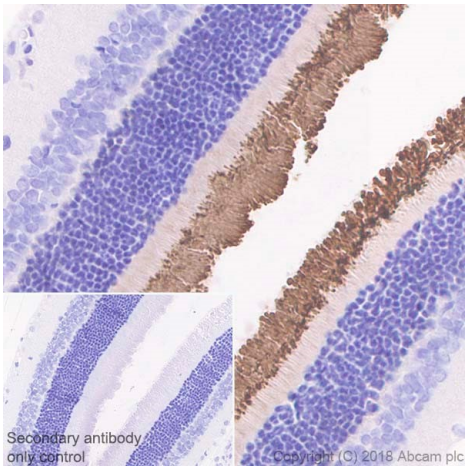
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use at an assay dependent concentration. Detects a band of approximately 35-150 kDa (predicted molecular weight: 38 kDa).
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
IHC-Fr		Use at an assay dependent concentration. Antigen retrieval is not needed.
IP		Use at an assay dependent concentration.

Target

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.

Images



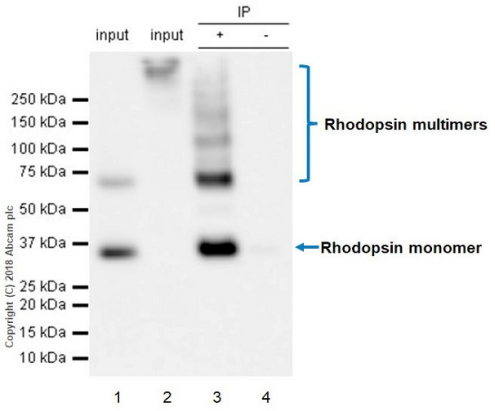
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Rhodopsin antibody [EPR21876] - BSA and Azide free (ab232934)

Immunohistochemical analysis of paraffin-embedded rat retina tissue labeling Rhodopsin with ab221664 at 1/32000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Cytoplasmic staining in outer segment of rat retina is observed (PMID: 23223288). Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab221664).

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunoprecipitation - Anti-Rhodopsin antibody [EPR21876] - BSA and Azide free (ab232934)

Rhodopsin was immunoprecipitated from 0.35 mg rat eye tissue lysate with ab221664 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab221664 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366) was used for detection at 1/5000 dilution.

Lane 1: Rat eye tissue lysate 10 µg (input).

Lane 2: Rat eye tissue lysate (boiled) 10 µg (input).

Lane 3: ab221664 IP in Rat eye tissue lysate.

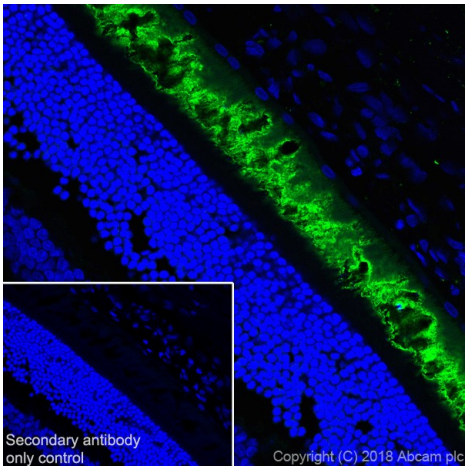
Lane 4: Rabbit monoclonal IgG (ab172730) instead of ab221664 in rat eye tissue lysate.

Exposure time: 15 seconds

The multiple bands (>60 kDa) correspond to dimers and multimers of rhodopsin, consistent with the literature (PMID: 25270370; PMID: 22219383).

We do not recommend boiling samples in loading buffer as this may cause protein aggregation (lane 2).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab221664).



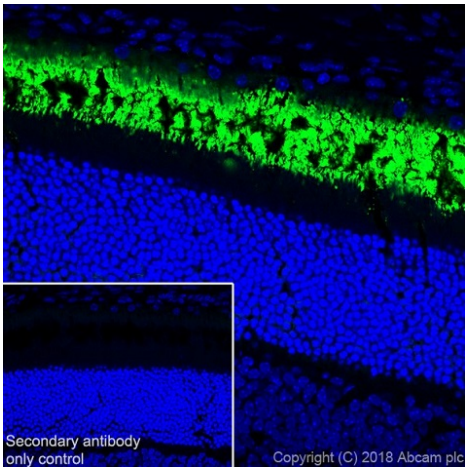
Immunohistochemistry (Frozen sections) - Anti-Rhodopsin antibody [EPR21876] - BSA and Azide free (ab232934)

Immunohistochemical analysis of 4% paraformaldehyde-fixed, 0.2% Triton X-100 permeabilized frozen rat retina tissue labeling Rhodopsin with ab221664 at 1/500 dilution,followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Positive staining in the outer segment of rat retina is observed (PMID: 21938483).

The nuclear counter stain is DAPI (blue).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab221664).



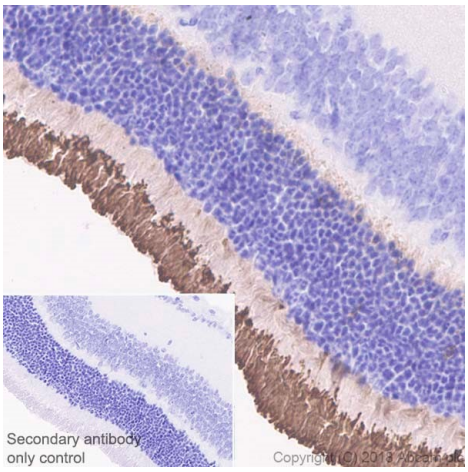
Immunohistochemistry (Frozen sections) - Anti-Rhodopsin antibody [EPR21876] - BSA and Azide free (ab232934)

Immunohistochemical analysis of 4% paraformaldehyde-fixed, 0.2% Triton X-100 permeabilized frozen mouse retina tissue labeling Rhodopsin with ab221664 at 1/500 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution (green). Positive staining in the outer segment of mouse retina is observed (PMID: 21938483).

The nuclear counter stain is DAPI (blue).

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) (ab150077) secondary antibody at 1/1000 dilution.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab221664).



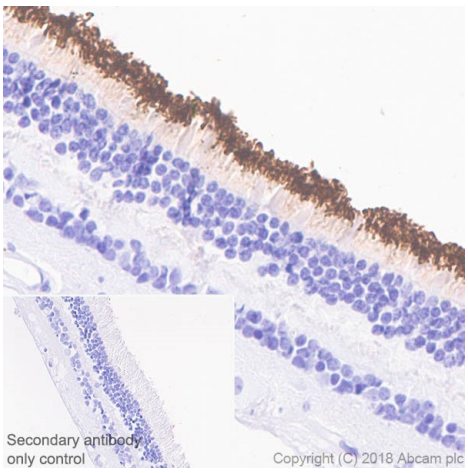
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Rhodopsin antibody [EPR21876] - BSA and Azide free (ab232934)

Immunohistochemical analysis of paraffin-embedded mouse retina tissue labeling Rhodopsin with ab221664 at 1/32000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Cytoplasmic staining in outer segment of mouse retina is observed (PMID: 23223288). Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab221664).

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Rhodopsin antibody [EPR21876] - BSA and Azide free (ab232934)

Immunohistochemical analysis of paraffin-embedded human retina tissue labeling Rhodopsin with ab221664 at 1/4000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Cytoplasmic staining in outer segment of human retina is observed (PMID: 23223288). Counter stained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab221664).

Heat mediated antigen retrieval was performed with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit https://www.abcam.com/abpromise or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors