

Product datasheet

Anti-CNGA1 antibody [PMc 1D1] ab253296

Recombinant

[5 Images](#)

Overview

Product name	Anti-CNGA1 antibody [PMc 1D1]
Description	Mouse monoclonal [PMc 1D1] to CNGA1
Host species	Mouse
Tested applications	Suitable for: IHC-Fr, IHC-P
Species reactivity	Reacts with: Mouse, Rat
Immunogen	Tissue, cells or virus. This information is proprietary to Abcam and/or its suppliers.
Positive control	IHC-P: Rat and mouse retina tissue. IHC-Fr: Rat and mouse retina tissue.
General notes	<p>This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or conjugation for your experiments, please contact orders@abcam.com.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p>

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	<p>pH: 7.2</p> <p>Preservative: 0.01% Sodium azide</p> <p>Constituents: PBS, 0.05% BSA, 40% Glycerol (glycerin, glycerine)</p>
Purity	Protein A purified
Clonality	Monoclonal
Clone number	PMc 1D1
Isotype	IgG1

Applications

The Abpromise guarantee

Our [Abpromise guarantee](#) covers the use of ab253296 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
IHC-Fr		Use a concentration of 5.05 µg/ml. Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20) is recommended.
IHC-P		Use a concentration of 1.01 µg/ml. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Target

Function

Visual signal transduction is mediated by a G-protein coupled cascade using cGMP as second messenger. This protein can be activated by cyclic GMP which leads to an opening of the cation channel and thereby causing a depolarization of rod photoreceptors.

Tissue specificity

Rod cells in the retina.

Involvement in disease

Defects in CNGA1 are the cause of retinitis pigmentosa type 49 (RP49) [MIM:613756]. RP leads to degeneration of retinal photoreceptor cells. Patients typically have night vision blindness and loss of midperipheral visual field. As their condition progresses, they lose their far peripheral visual field and eventually central vision as well.

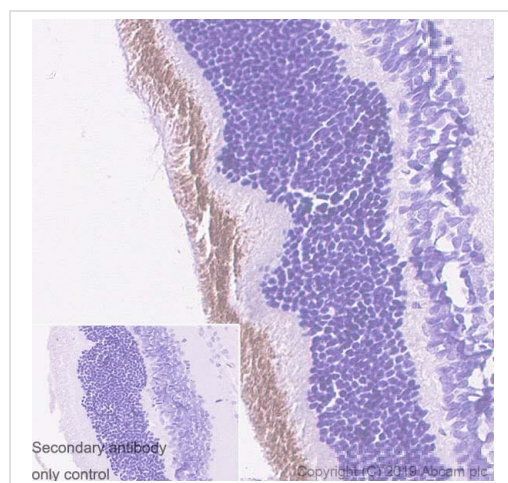
Sequence similarities

Belongs to the cyclic nucleotide-gated cation channel (TC 1.A.1.5) family. CNGA1 subfamily. Contains 1 cyclic nucleotide-binding domain.

Cellular localization

Membrane.

Images

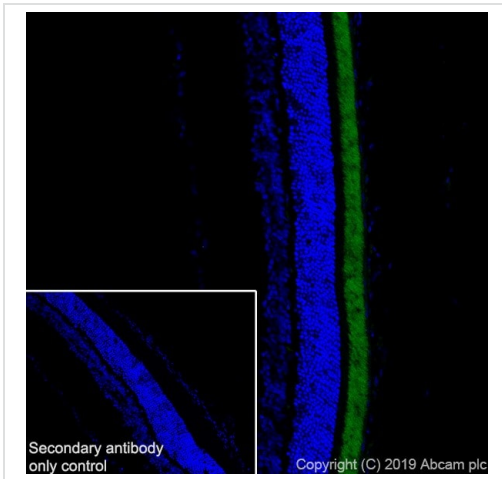


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CNGA1 antibody [PMc 1D1] (ab253296)

Immunohistochemical analysis of paraffin-embedded rat retina tissue labeling CNGA1 with ab253296 at 1.01 µg/ml, followed by ready to use Goat Anti-Mouse IgG H&L (HRP polymer) ([ab214879](#)). Positive staining on light-sensing cells of rat retina is observed. The section was incubated with ab253296 for 30 mins at room temperature. The immunostaining staining was performed on a Leica Biosystems BOND[®] RX instrument. Counterstained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, followed by ready to use Goat Anti-Mouse IgG H&L (HRP polymer) ([ab214879](#)).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.

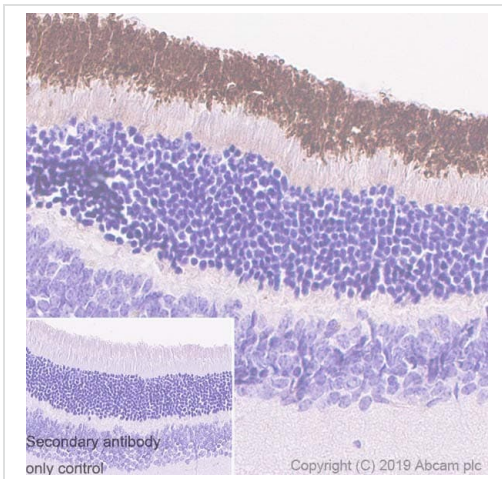


Immunohistochemistry (Frozen sections) - Anti-CNGA1 antibody [PMc 1D1] (ab253296)

Immunohistochemical analysis of 4% PFA-fixed, 0.2% Triton X-100 permeabilized frozen rat retina tissue labeling CNGA1 with ab253296 at 5.05µg/ml, followed by ab150113 AlexaFluor®488 Goat anti-Mouse secondary at a 1/1000 dilution. Positive staining on rat retina is observed. Nuclear counterstain is DAPI.

Secondary antibody only control: Used PBS instead of primary antibody, followed by ab150113 AlexaFluor®488 Goat anti-Mouse secondary at a 1/1000 dilution.

Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).

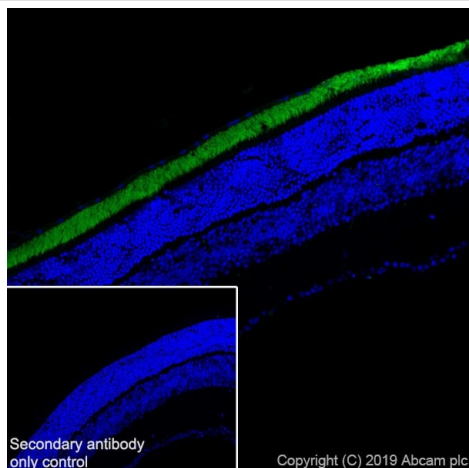


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CNGA1 antibody [PMc 1D1] (ab253296)

Immunohistochemical analysis of paraffin-embedded mouse retina tissue labeling CNGA1 with ab253296 at 1.01µg/ml, followed by ready to use Goat Anti-Mouse IgG H&L (HRP polymer) (ab214879). Positive staining on light-sensing cells of mouse retina is observed. The section was incubated with ab253296 for 30 mins at room temperature. The immunostaining staining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with hematoxylin.

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Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20).

Immunohistochemistry (Frozen sections) - Anti-CNGA1 antibody [PMc 1D1] (ab253296)

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-CNGA1 antibody [PMc 1D1] (ab253296)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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