

Product datasheet

Anti-TRPV4 antibody [EPR22622-54] ab231772

Recombinant RabMAb

5 Images

Overview

Product name	Anti-TRPV4 antibody [EPR22622-54]
Description	Rabbit monoclonal [EPR22622-54] to TRPV4
Host species	Rabbit
Tested applications	Suitable for: IHC-P Unsuitable for: Flow Cyt, ICC/IF, IHC-Fr, IP or WB
Species reactivity	Reacts with: Mouse, Rat
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	IHC-P: Mouse cerebrum and kidney tissue. Rat kidney and spleen tissue.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: <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 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	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR22622-54
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab231772 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-P		1/100. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Application notes

Is unsuitable for Flow Cyt, ICC/IF, IHC-Fr, IP or WB.

Target

Function

Non-selective calcium permeant cation channel probably involved in osmotic sensitivity and mechanosensitivity. Activation by exposure to hypotonicity within the physiological range exhibits an outward rectification. Also activated by low pH, citrate and phorbol esters. Increase of intracellular Ca^{2+} potentiates currents. Channel activity seems to be regulated by a calmodulin-dependent mechanism with a negative feedback mechanism. Promotes cell-cell junction formation in skin keratinocytes and plays an important role in the formation and/or maintenance of functional intercellular barriers. Acts as a regulator of intracellular Ca^{2+} in synoviocytes. Plays an obligatory role as a molecular component in the nonselective cation channel activation induced by 4- α -phorbol 12,13-didecanoate and hypotonic stimulation in synoviocytes and also regulates production of IL-8.

Tissue specificity

Found in the synoviocytes from patients with (RA) and without (CTR) rheumatoid arthritis (at protein level).

Involvement in disease

Brachyolmia 3
Spondylometaphyseal dysplasia Kozlowski type
Metatropic dysplasia
Distal spinal muscular atrophy, congenital non-progressive
Charcot-Marie-Tooth disease 2C
Scapuloperoneal spinal muscular atrophy
Spondyloepiphyseal dysplasia Maroteaux type
Parastremmatic dwarfism
Digital arthropathy-brachydactyly, familial

Sequence similarities

Belongs to the transient receptor (TC 1.A.4) family. TrpV subfamily. TRPV4 sub-subfamily. Contains 3 ANK repeats.

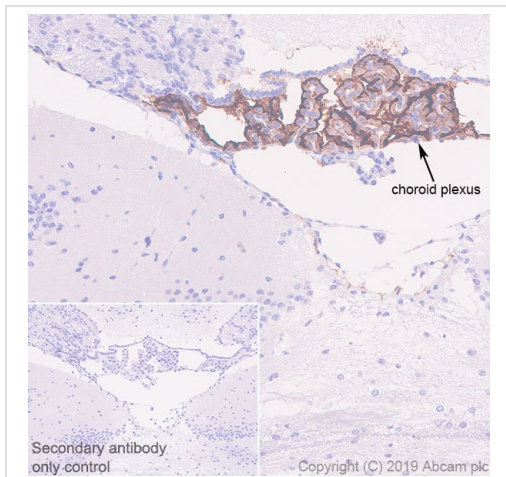
Post-translational modifications

Phosphorylation results in enhancement of its channel function.

Cellular localization

Cell membrane and Cell membrane. Cell junction > adherens junction. Assembly of the putative homotetramer occurs primarily in the endoplasmic reticulum.

Images

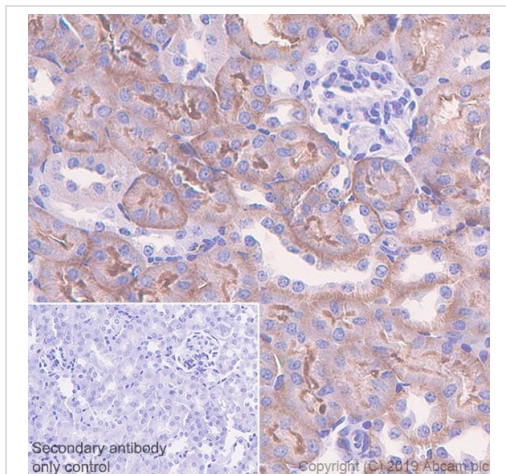


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TRPV4 antibody [EPR22622-54] (ab231772)

Immunohistochemical analysis of paraffin-embedded mouse cerebrum tissue labeling TRPV4 with ab231772 at 1/100 dilution, followed by the ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Membranous staining on choroid plexus of mouse cerebrum (PMID: 18499744) is observed. The section was incubated with ab231772 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

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

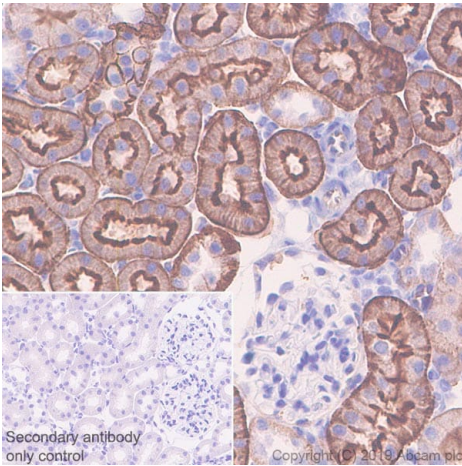


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TRPV4 antibody [EPR22622-54] (ab231772)

Immunohistochemical analysis of paraffin-embedded mouse kidney tissue labeling TRPV4 with ab231772 at 1/100 dilution, followed by the ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Membranous staining on mouse kidney (PMID:16627472, 18499744) is observed. The section was incubated with ab231772 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

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

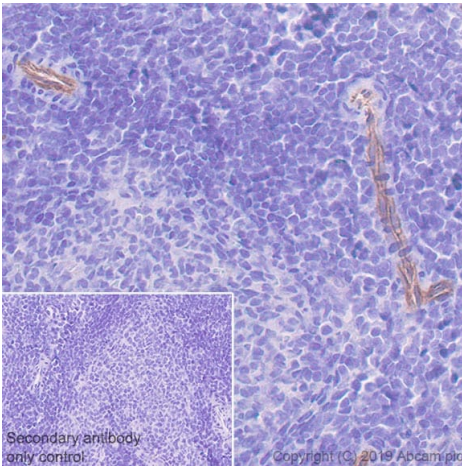


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TRPV4 antibody [EPR22622-54] (ab231772)

Immunohistochemical analysis of paraffin-embedded rat kidney tissue labeling TRPV4 with ab231772 at 1/100 dilution, followed by the ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Membranous staining on rat kidney (PMID:16627472, 18499744) is observed. The section was incubated with ab231772 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

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



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TRPV4 antibody [EPR22622-54] (ab231772)

Immunohistochemical analysis of paraffin-embedded rat spleen tissue labeling TRPV4 with ab231772 at 1/100 dilution, followed by the ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Membranous staining on blood vessels of rat spleen (PMID:16627472) is observed. The section was incubated with ab231772 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

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

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-TRPV4 antibody [EPR22622-54] (ab231772)

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

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