

Product datasheet

Anti-TRPV1 antibody ab3487

★★★★★ [2 Abreviews](#) [23 References](#) [2 Images](#)

Overview

Product name	Anti-TRPV1 antibody
Description	Rabbit polyclonal to TRPV1
Host species	Rabbit
Specificity	Immunohistochemical staining of TRPV1 in human glabrous skin using this antibody results in the staining of epidermal and dermal cells, as well as free nerve fibers and Merkel cells. Immunofluorescent staining of TRPV1 in human prostatic urethra results in fibrous staining within the epithelial cells.
Tested applications	Suitable for: IHC-Fr, IHC-P
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide corresponding to Human TRPV1 aa 1-100. Run BLAST with Expasy Run BLAST with NCBI
Positive control	IHC-F: human skin tissue IHC-P: human glabrous skin tissue
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</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 or -80°C. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 99% PBS
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab3487 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	★★★★★ (1)	Use a concentration of 1 µg/ml.
IHC-P		Use a concentration of 1 µg/ml.

Target

Function

Receptor-activated non-selective calcium permeant cation channel involved in detection of noxious chemical and thermal stimuli. Seems to mediate proton influx and may be involved in intracellular acidosis in nociceptive neurons. May be involved in mediation of inflammatory pain and hyperalgesia. Sensitized by a phosphatidylinositol second messenger system activated by receptor tyrosine kinases, which involves PKC isozymes and PCL. Acts as ionotropic endocannabinoid receptor with central neuromodulatory effects. Triggers a form of long-term depression (TRPV1-LTD) mediated by the endocannabinoid anandamine in the hippocampus and nucleus accubens by affecting AMPA receptors endocytosis.

Tissue specificity

Widely expressed at low levels. Expression is elevated in dorsal root ganglia. In skin, expressed in cutaneous sensory nerve fibers, mast cells, epidermal keratinocytes, dermal blood vessels, the inner root sheet and the infundibulum of hair follicles, differentiated sebocytes, sweat gland ducts, and the secretory portion of eccrine sweat glands (at protein level).

Sequence similarities

Belongs to the transient receptor (TC 1.A.4) family. TrpV subfamily. TRPV1 sub-subfamily. Contains 6 ANK repeats.

Domain

The association domain (AD) is necessary for self-association.

Post-translational modifications

Phosphorylation by PKA reverses capsaicin-induced dephosphorylation at multiple sites, probably including Ser-117 as a major phosphorylation site. Phosphorylation by CAMKII seems to regulate binding to vanilloids. Phosphorylated and modulated by PKCM and probably PKCZ. Dephosphorylation by calcineurin seems to lead to receptor desensitization and phosphorylation by CAMKII recovers activity.

Cellular localization

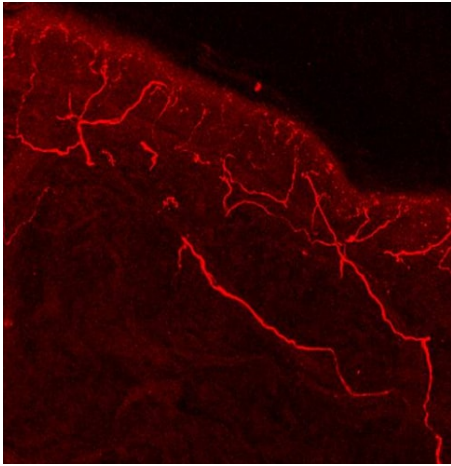
Cell junction > synapse > postsynaptic cell membrane. Cell projection > dendritic spine membrane.

Images



Immunolocalization of TRPV1 in human glabrous skin using ab3487.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TRPV1 antibody (ab3487)



Immunohistochemistry (Frozen sections) - Anti-TRPV1 antibody (ab3487)

Immunohistochemistry (frozen sections) analysis of human skin tissue sections labeling TRPV1 (red) with ab3487 at 1/250. A biotin-conjugated donkey anti-rabbit IgG was used as the secondary antibody.

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