**Product datasheet**

**Anti-VR1 antibody ab31895**

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### Overview

**Product name** Anti-VR1 antibody  
**Description** Rabbit polyclonal to VR1  
**Host species** Rabbit  
**Tested applications** Suitable for: IHC (PFA fixed), IHC-P, IHC-Fr  
**Species reactivity** Reacts with: Mouse, Rat  
**Predicted to work with:** Guinea pig  
**Immunogen** Synthetic peptide: 
(C)EDAEVFKDSMAPGEK  
conjugated to KLH, corresponding to C terminal amino acids 825 - 839 of Mouse TRPV1

### Properties

**Form** Liquid  
**Storage instructions** Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.  
**Storage buffer** Constituent: Whole serum  
**Purity** Whole antiserum  
**Clonality** Polyclonal  
**Isotype** IgG

### Applications

Our Abpromise guarantee covers the use of ab31895 in the following tested applications.

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

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<th>Application</th>
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<td>IHC (PFA fixed)</td>
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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 accumbens 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
ab31895 at 1/1000 demonstrating VR1 immunoreactivity in mouse
dorsal root ganglion. Animals were perfusion fixed with 2%
paraformaldehyde.
ab31895 staining mouse inferior olive using Cy3-conjugated donkey anti-rabbit secondary antibodies (red color) and DAPI (blue) as a nuclear counterstain.

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