

## TRPV4 Polyclonal Antibody

Catalog # AP73223

### Specification

#### TRPV4 Polyclonal Antibody - Product Information

Application	WB
Primary Accession	<a href="#">Q9HBA0</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal

#### TRPV4 Polyclonal Antibody - Additional Information

##### Gene ID 59341

##### Other Names

TRPV4; VRL2; VROAC; Transient receptor potential cation channel subfamily V member 4; TrpV4; Osm-9-like TRP channel 4; OTRPC4; Transient receptor potential protein 12; TRP12;Vanilloid receptor-like channel 2; Vanilloid receptor-like protein 2; VRL-2; Vanilloid receptor-related osmotically-activated channel; VR-OAC

##### Dilution

WB~~Western Blot: 1/500 - 1/2000. ELISA: 1/20000. Not yet tested in other applications.

##### Format

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

##### Storage Conditions

-20°C

#### TRPV4 Polyclonal Antibody - Protein Information

##### Name TRPV4

##### Synonyms VRL2, VROAC

##### Function

Non-selective calcium permeant cation channel involved in osmotic sensitivity and mechanosensitivity (PubMed:<a href="http://www.uniprot.org/citations/16293632" target="\_blank">16293632</a>, PubMed:<a href="http://www.uniprot.org/citations/18695040" target="\_blank">18695040</a>, PubMed:<a href="http://www.uniprot.org/citations/18826956" target="\_blank">18826956</a>, PubMed:<a href="http://www.uniprot.org/citations/22526352" target="\_blank">22526352</a>, PubMed:<a href="http://www.uniprot.org/citations/23136043" target="\_blank">23136043</a>, PubMed:<a href="http://www.uniprot.org/citations/29899501" target="\_blank">29899501</a>). Activation by exposure to hypotonicity within the physiological range exhibits an outward rectification (PubMed:<a href="http://www.uniprot.org/citations/18695040" target="\_blank">18695040</a>, PubMed:<a href="http://www.uniprot.org/citations/18826956" target="\_blank">18826956</a>, PubMed:<a

href="http://www.uniprot.org/citations/29899501" target="\_blank">>29899501</a>). Also activated by heat, low pH, citrate and phorbol esters (PubMed:<a href="http://www.uniprot.org/citations/16293632" target="\_blank">>16293632</a>, PubMed:<a href="http://www.uniprot.org/citations/18695040" target="\_blank">>18695040</a>, PubMed:<a href="http://www.uniprot.org/citations/18826956" target="\_blank">>18826956</a>, PubMed:<a href="http://www.uniprot.org/citations/20037586" target="\_blank">>20037586</a>, PubMed:<a href="http://www.uniprot.org/citations/21964574" target="\_blank">>21964574</a>, PubMed:<a href="http://www.uniprot.org/citations/25256292" target="\_blank">>25256292</a>). Increase of intracellular Ca(2+) potentiates currents. Channel activity seems to be regulated by a calmodulin-dependent mechanism with a negative feedback mechanism (PubMed:<a href="http://www.uniprot.org/citations/12724311" target="\_blank">>12724311</a>, PubMed:<a href="http://www.uniprot.org/citations/18826956" target="\_blank">>18826956</a>). Promotes cell-cell junction formation in skin keratinocytes and plays an important role in the formation and/or maintenance of functional intercellular barriers (By similarity). Acts as a regulator of intracellular Ca(2+) in synoviocytes (PubMed:<a href="http://www.uniprot.org/citations/19759329" target="\_blank">>19759329</a>). Plays an obligatory role as a molecular component in the nonselective cation channel activation induced by 4-alpha-phorbol 12,13-didecanoate and hypotonic stimulation in synoviocytes and also regulates production of IL-8 (PubMed:<a href="http://www.uniprot.org/citations/19759329" target="\_blank">>19759329</a>). Together with PKD2, forms mechano- and thermosensitive channels in cilium (PubMed:<a href="http://www.uniprot.org/citations/18695040" target="\_blank">>18695040</a>). Negatively regulates expression of PPARGC1A, UCP1, oxidative metabolism and respiration in adipocytes (By similarity). Regulates expression of chemokines and cytokines related to pro-inflammatory pathway in adipocytes (By similarity). Together with AQP5, controls regulatory volume decrease in salivary epithelial cells (By similarity). Required for normal development and maintenance of bone and cartilage (PubMed:<a href="http://www.uniprot.org/citations/26249260" target="\_blank">>26249260</a>). In its inactive state, may sequester DDX3X at the plasma membrane. When activated, the interaction between both proteins is affected and DDX3X relocates to the nucleus (PubMed:<a href="http://www.uniprot.org/citations/29899501" target="\_blank">>29899501</a>). In neurons of the central nervous system, could play a role in triggering voluntary water intake in response to increased sodium concentration in body fluid (By similarity).

### Cellular Location

Cell membrane. Apical cell membrane; Multi-pass membrane protein. Cell junction, adherens junction {ECO:0000250|UniProtKB:Q9EPK8}. Cell projection, cilium. Note=Assembly of the putative homotetramer occurs primarily in the endoplasmic reticulum (PubMed:16293632, PubMed:20037587, PubMed:20037588). Localization to the cell membrane is inhibited by WNK kinases (WNK1, WNK2, WNK3 or WNK4) in a kinase-independent mechanism (PubMed:16403833) [Isoform 5]: Cell membrane [Isoform 4]: Endoplasmic reticulum

### Tissue Location

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

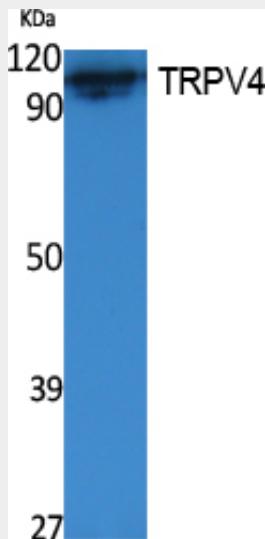
### TRPV4 Polyclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)

- [Flow Cytometry](#)
- [Cell Culture](#)

### TRPV4 Polyclonal Antibody - Images



Western Blot analysis of extracts from K562 cells, using TRPV4 Polyclonal Antibody.. Secondary antibody was diluted at 1:20000

### TRPV4 Polyclonal Antibody - Background

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