

Rabbit TRPV4 Polyclonal Antibody | anti-TRPV4 antibody

TRPV4 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA327554	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Western Blot

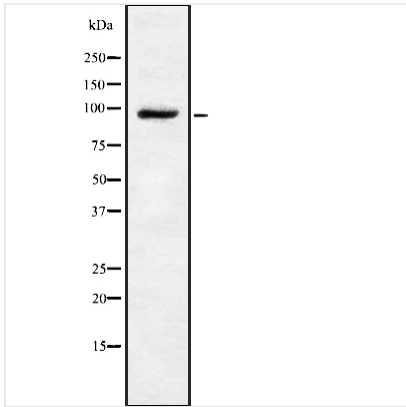
PRODUCT SYNONYMS

TRPV4; Polyclonal Antibody; TRPV4 Antibody; BCYM3; CMT2C; HMSN2C; osm 9 like TRP channel 4; Osm-9-like TRP channel 4; OSM9 like transient receptor potential channel 4; Osmosensitive transient receptor potential channel 4; OTRPC 4; OTRPC4; SMAL; SPSMA; SSQTL1; Transient receptor potential cation channel subfamily V member 4; Transient receptor potential protein 12; TRP 12; TRP12; TRPV 4; TrpV4; TRPV4_HUMAN; Vanilloid receptor like channel 2; Vanilloid receptor like protein 2; Vanilloid receptor related osmotically activated channel; Vanilloid receptor-like channel 2; Vanilloid receptor-like protein 2; Vanilloid receptor-related osmotically-activated channel; VR 4; VR OAC; VR-OAC; VR4; VRL 2; VRL-2; VRL2; VROAC; anti-TRPV4 antibody

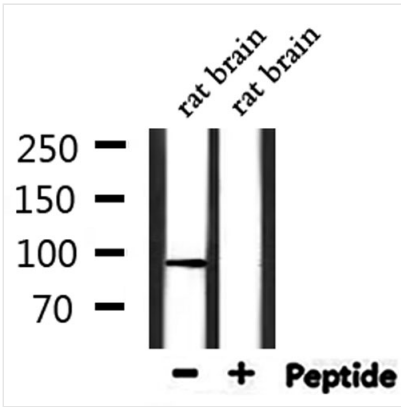
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	TRPV4 antibody detects endogenous levels of total TRPV4
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	824
Applicable Applications for anti-TRPV4 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human TRPV4
Subcellular Location	Cell Membrane and Cell Membrane. Cell Junction > Adherens Junction. Assembly of the putative homotetramer occurs primarily in the endoplasmic reticulum.
Tissue Specificity	Found in the synoviocytes from patients with (RA) and without (CTR) rheumatoid arthritis (at protein level).
Predicted Cross Reactivity	Pig, Zebrafish, Bovine, Sheep, Rabbit
Similarity	Pig (100%), Zebrafish (82%), Bovine (100%), Sheep (100%), Rabbit (100%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



WB (Western Blot)
Western blot analysis of TRPV4 using HeLa whole cell lysates



WB (Western Blot)
Western blot analysis of extracts from rat brain, using TRPV4 Antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-TRPV4 antibody	Function: Non-selective calcium permeant cation channel involved in osmotic sensitivity and mechanosensitivity. Activation by exposure to hypotonicity within the physiological range exhibits an outward rectification (PubMed:18826956, PubMed:18695040). Also activated by heat, low pH, citrate and phorbol esters (PubMed:16293632, PubMed:18826956, PubMed:18695040, PubMed:25256292, PubMed:20037586, PubMed:21964574). Increase of intracellular Ca²⁺ potentiates currents. Channel activity seems to be regulated by a calmodulin-dependent mechanism with a negative feedback mechanism (PubMed:12724311, PubMed:18826956). 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 Ca²⁺ in synoviocytes (PubMed:19759329). 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:19759329). Together with PKD2, forms mechano- and thermosensitive channels in cilium (PubMed:18695040). Negatively regulates expression of PPARGC1A, UCP1, oxidative metabolism and respiration in adipocytes (By similarity). Regulates expression of chemokines and cytokines related to proinflammatory 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:26249260). Subunit Structure: Homotetramer (Probable). Self-associates in a isoform-specific manner (PubMed:16293632). Isoform 1 and isoform 5 can oligomerize, but isoform 2, isoform 4 and isoform 6 cannot oligomerize (PubMed:16293632). Interacts with calmodulin (PubMed:12724311). Interacts with Map7 and Src family Tyr protein kinases LYN, SRC, FYN, HCK, LCK and YES (By similarity). Interacts with CTNNB1 (By similarity). The TRPV4 and CTNNB1 complex can interact with CDH1 (By similarity). Interacts with PACSIN1, PACSIN2 and PACSIN3 (via SH3 domain) (By similarity). Part of a complex containing MLC1, AQP4, HEPACAM and ATP1B1 (PubMed:22328087). Interacts with ITPR3 (PubMed:18826956). Interacts with AQP5; the interaction is probably indirect and regulates TRPV4 activation by hypotonicity (By similarity). Interacts with ANO1 (By similarity). Interacts (via C-terminus) with PKD2 (via C-terminus) (PubMed:18695040). Post-translational Modifications: N-glycosylated. Similarity: The ANK repeat region mediates interaction with Ca²⁺-calmodulin and ATP binding (By similarity). The ANK repeat region mediates interaction with phosphatidylinositol-4, 5-bisphosphate and related phosphatidylinositides (PubMed:25256292). Belongs to the transient receptor (TC 1.A.4) family. TrpV subfamily. TRPV4 sub-subfamily.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	294459965
NCBI GeneID	59341
NCBI Accession #	NP_001170899.1
NCBI GenBank Nucleotide #	NM_001177428.1

UniProt Accession #	Q9HBA0; Q17R79; Q2Y122; Q2Y123; Q2Y124; Q86YZ6; Q8NDY7; Q8NG64; Q96Q92; Q96RS7; Q9HBC0; B7ZKQ6
Molecular Weight	Observed: 98 kDa Predicted: 99 kDa
NCBI Official Full Name	transient receptor potential cation channel subfamily V member 4 isoform e
NCBI Official Synonym Full Names	transient receptor potential cation channel subfamily V member 4
NCBI Official Symbol	TRPV4
NCBI Official Synonym Symbols	SMAL; VRL2; BCYM3; CMT2C; SPSMA; TRP12; VROAC; HMSN2C; OTRPC4; SSQTL1
NCBI Protein Information	transient receptor potential cation channel subfamily V member 4
UniProt Protein Name	Transient receptor potential cation channel subfamily V member 4
UniProt Gene Name	TRPV4
UniProt Synonym Gene Names	VRL2; VROAC; TRP12; VRL-2; VR-OAC1 PublicationManual assertion based on opinion iniRef.1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/trpv4-antibody-immunocytochemistry-immunofluorescence-western-blot-elisa/327554>