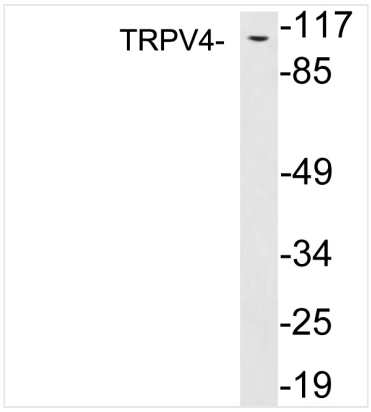
TRPV4 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	TRPV4, Polyclonal Antibody
Full Product Name	TRPV4 Antibody
Product Gene Name	anti-TRPV4 antibody
Clonality	Polyclonal
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Form/Format	Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purity/Purification	Purified from rabbit antiserum by affinity-chromatography using immunogen.
Concentration	1 mg/ml (lot specific)
Specificity	TRPV4 antibody detects endogenous levels of TRPV4.
Preparation and Storage	Stable at -20 degree C for at least 1 year.
Molecular Weight	98 kDa
OMIM	AF263523 mRNA
3D Structure	ModBase 3D Structure for Q9HBA0
Target Modification	Unmodified/Total
Immunogen	The antiserum was produced against synthesized peptide derived from human TRPV4.
Immunogen Range	417-466
Applications Tested/Suitable for anti-TRPV4 antibody	Western Blot (WB), ELISA (EIA)
Application Notes for anti-TRPV4 antibody	WB: 1:500~1:1000 ELISA: 1:10000
Related Product Information for anti-TRPV4 antibody	MBS9509084 is an antibody targeting TRPV4. Also known as TRPV4 Antibody. Reactive in Human, Mouse, Rat. Host: Rabbit.
Other Notes	Small volumes of anti-TRPV4 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.



Western Blot (WB) of anti-TRPV4 antibody
Western blot analysis of lysates from PC12 cells, using TRPV4 antibody.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for TRPV4. It may not necessarily be applicable to this product.

NCBI GI #	294459965
NCBI GeneID	59341
NCBI Accession #	NP_001170899.1
UniProt Primary Accession #	Q9HBA0
UniProt Secondary Accession #	Q17R79; Q2Y122; Q2Y123; Q2Y124; Q86YZ6; Q8NDY7; Q8NG64; Q96Q92; Q96RS7; Q9HBC0; B7ZKQ6
UniProt Related Accession #	Q9HBA0
GenBank Nucleotide #	NM_001177428.1
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
UniProt Protein Name	Transient receptor potential cation channel subfamily V member 4
UniProt Synonym Protein Names	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
Protein Family	Transient receptor potential cation channel subfamily
UniProt Gene Name	TRPV4
UniProt Synonym Gene Names	VRL2; VROAC; TrpV4; OTRPC4; TRP12; VRL-2; VR-OAC
NCBI Protein Information	transient receptor potential cation channel subfamily V member 4
NCBI Summary for TRPV4	This gene encodes a member of the OSM9-like transient receptor potential channel (OTRPC) subfamily in the transient receptor potential (TRP) superfamily of ion channels. The encoded protein is a Ca2+-permeable, nonselective cation channel that is thought to be involved in the regulation of systemic osmotic pressure. Mutations in this gene are the cause of spondylometaphyseal and metatropic dysplasia and hereditary motor and sensory neuropathy type IIC. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Apr 2010]

UniProt Comments for TRPV4	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:18826956, PubMed:18695040). 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 (). 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 (). Regulates expression of chemokines and cytokines related to proinflammatory pathway in adipocytes (). Together with AQP5, controls regulatory volume decrease in salivary epithelial cells (). Required for normal development and maintenance of bone and cartilage (PubMed:26249260).
Research Articles on TRPV4	**1.** this study, demonstrates for the first time that calcium exerts an oncogenic action in the stomach through activation of CaSR and TRPV4 channels. Both CaSR and TRPV4 were involved in Ca2+-induced proliferation, migration, and invasion of gastric cancer cells through a Ca2+/AKT/beta-catenin relay, which occurred only in gastric cancer cells or normal cells overexpressing CaSR.
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