



# TRPV4 Polyclonal Antibody

|                                    |                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Catalog No</b>                  | YP-Ab-16518                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Isotype</b>                     | IgG                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Reactivity</b>                  | Human;Mouse;Rat                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Applications</b>                | WB;ELISA                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Gene Name</b>                   | TRPV4                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Immunogen</b>                   | The antiserum was produced against synthesized peptide derived from human TRPV4. AA range:417-466                                                                                                                                                                                                                                                                                                           |
| <b>Specificity</b>                 | TRPV4 Polyclonal Antibody detects endogenous levels of TRPV4 protein.                                                                                                                                                                                                                                                                                                                                       |
| <b>Formulation</b>                 | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.                                                                                                                                                                                                                                                                                                                                     |
| <b>Source</b>                      | Polyclonal, Rabbit,IgG                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Purification</b>                | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.                                                                                                                                                                                                                                                                                       |
| <b>Dilution</b>                    | Western Blot: 1/500 - 1/2000. ELISA: 1/20000. Not yet tested in other applications.                                                                                                                                                                                                                                                                                                                         |
| <b>Concentration</b>               | 1 mg/ml                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Purity</b>                      | ≥90%                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Storage Stability</b>           | -20°C/1 year                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Synonyms</b>                    | Osm 9 like TRP channel 4;Osm-9-like TRP channel 4;OTRPC4;TRP12;Vanilloid receptor-like channel 2;TRPV4;Transient receptor potential cation channel subfamily V member 4;VRL2;VROAC;Transient receptor potential protein 12; Vanilloid receptor-like protein 2;VRL-2;Vanilloid receptor-related osmotically-activated channel;VR-OAC                                                                         |
| <b>Observed Band</b>               | 98kD                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Calculated Molecular Weight</b> | 98kD                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Cell Pathway</b>                | Cell membrane . Apical cell membrane ; Multi-pass membrane protein . Cell junction, adherens junction . Cell projection, cilium . Assembly of the putative homotetramer occurs primarily in the endoplasmic reticulum. . ; [Isoform 1]: Cell membrane . ; [Isoform 5]: Cell membrane . ; [Isoform 2]: Endoplasmic reticulum . ; [Isoform 4]: Endoplasmic reticulum . ; [Isoform 6]: Endoplasmic reticulum . |
| <b>Tissue Specificity</b>          | Found in the synoviocytes from patients with (RA) and without (CTR) rheumatoid arthritis (at protein level).                                                                                                                                                                                                                                                                                                |
| <b>Function</b>                    | disease:Defects in TRPV4 are the cause of brachyolmia type 3 [MIM:113500]; also called brachyrachia. The brachyolmias constitute a clinically and genetically heterogeneous group of skeletal dysplasias characterized by a short trunk,                                                                                                                                                                    |



scoliosis and mild short stature. Type 3 brachyolmia is an autosomal dominant form with severe kyphoscoliosis and flattened, irregular cervical vertebrae., function:Non-selective calcium permeant cation channel probably involved in osmotic sensitivity and mechanosensitivity. Activation by exposure to hypotonicity within the physiological range exhibits an outward rectification. Also activated by low pH, citrate and phorbol esters. Increase of intracellular  $Ca^{2+}$  potentiates currents. Channel activity seems to be regulated by a calmodulin-dependent mechanism with a negative feedback mechanism.,similarity:Belongs to the transient receptor family. TrpV subfamily

#### Background

transient receptor potential cation channel subfamily V member 4 (TRPV4) Homo sapiens 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  $Ca^{2+}$ -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],

#### matters needing attention

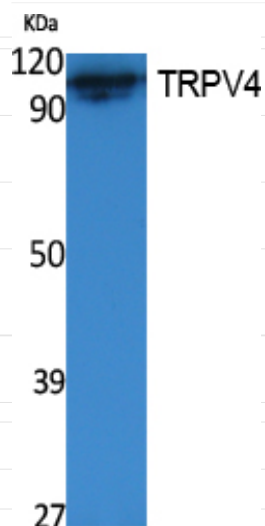
Avoid repeated freezing and thawing!

#### Usage suggestions

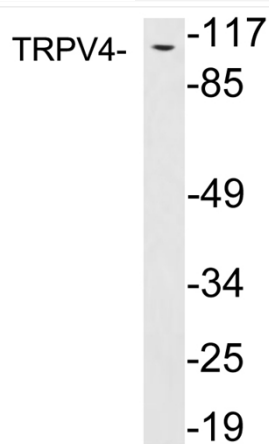
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



## Products Images



Western Blot analysis of extracts from K562 cells, using TRPV4 Polyclonal Antibody. Secondary antibody(catalog#:RS0002) was diluted at 1:20000



Western blot analysis of lysates from PC12 cells, using TRPV4 antibody.