

TRPM2 Antibody (Internal)
Goat Polyclonal Antibody
Catalog # ALS13176**Specification**

TRPM2 Antibody (Internal) - Product Information

Application	IHC
Primary Accession	O94759
Reactivity	Human, Monkey
Host	Goat
Clonality	Polyclonal
Calculated MW	171kDa KDa

TRPM2 Antibody (Internal) - Additional Information**Gene ID** 7226**Other Names**

Transient receptor potential cation channel subfamily M member 2, 3.6.1.13, Estrogen-responsive element-associated gene 1 protein, Long transient receptor potential channel 2, LTrpC-2, LTrpC2, Transient receptor potential channel 7, TrpC7, TRPM2, EREG1, KNP3, LTRPC2, TRPC7

Target/Specificity

Human TRPM2.

Reconstitution & Storage

Store at -20°C. Minimize freezing and thawing.

Precautions

TRPM2 Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

TRPM2 Antibody (Internal) - Protein Information**Name** TRPM2**Function**

[Isoform 1]: Nonselective, voltage-independent cation channel that mediates Na(+) and Ca(2+) influx, leading to increased cytoplasmic Ca(2+) levels (PubMed:11960981, PubMed:12594222, PubMed:11385575, PubMed:11509734, PubMed:11804595, PubMed:15561722, PubMed:16601673, PubMed:19171771, PubMed:20660597, PubMed:25620041, PubMed:27383051, PubMed:27068538, PubMed:28775320, PubMed:29745897, PubMed:30467180). Functions as a ligand-gated ion channel (PubMed:19171771, PubMed:25620041, PubMed:28775320, PubMed:30467180). Binding of ADP- ribose to the cytoplasmic Nudix domain causes a conformation change; the channel is primed but still requires Ca(2+) binding to trigger channel opening (PubMed:19171771, PubMed:25620041, PubMed:28775320, PubMed:29745897, PubMed:30467180). Extracellular calcium passes through the channel and increases channel activity (PubMed:19171771). Contributes to Ca(2+) release from intracellular stores in response to ADP-ribose (PubMed:19454650). Plays a role in numerous processes that involve signaling via intracellular Ca(2+) levels (Probable). Besides, mediates the release of lysosomal Zn(2+) stores in response to reactive oxygen species, leading to increased cytosolic Zn(2+) levels (PubMed:25562606, PubMed:27068538). Activated by moderate heat (35 to 40 degrees Celsius) (PubMed:16601673). Activated by intracellular ADP- ribose, beta-NAD (NAD(+)) and similar compounds, and by oxidative stress caused by reactive oxygen or nitrogen species (PubMed:11960981, PubMed:11385575, PubMed:11509734, PubMed:11804595, PubMed:15561722, PubMed:16601673, PubMed:19171771, PubMed:25620041, PubMed:27383051, PubMed:27068538, PubMed:30467180). The precise physiological activators are under debate; the true, physiological activators may be ADP-ribose and ADP-ribose-2'-phosphate (PubMed:20650899, PubMed:25918360). Activation by ADP-ribose and beta-NAD is strongly increased by moderate heat (35 to 40 degrees Celsius) (PubMed:16601673). Likewise, reactive oxygen species lower the threshold for activation by moderate heat (37 degrees Celsius) (PubMed:22493272). Plays a role in mediating behavioral and physiological responses to moderate heat and thereby contributes to body temperature homeostasis. Plays a role in insulin secretion, a process that requires increased cytoplasmic Ca(2+) levels (By similarity). Required for normal IFNG and cytokine secretion and normal innate immune immunity in response to bacterial infection. Required for normal phagocytosis and cytokine release by macrophages exposed to zymosan (in vitro). Plays a role in dendritic cell differentiation and maturation, and in dendritic cell chemotaxis via its role in regulating cytoplasmic Ca(2+) levels (By similarity). Plays a role in the regulation of the reorganization of the actin cytoskeleton and filopodia formation in response to reactive oxygen

species via its role in increasing cytoplasmic Ca^{2+} and Zn^{2+} levels (PubMed:27068538). Confers susceptibility to cell death following oxidative stress (PubMed:12594222, PubMed:25562606).

Cellular Location

Cell membrane; Multi-pass membrane protein. Perikaryon {ECO:0000250|UniProtKB:E9PTA2}. Cell projection {ECO:0000250|UniProtKB:E9PTA2}. Cytoplasmic vesicle {ECO:0000250|UniProtKB:E9PTA2}. Lysosome Note=Detected at the cell membrane and in intracellular vesicles in cortical neurons. Detected on neuronal cell bodies and neurites (By similarity). Detected on the cell membrane in polymorphonuclear neutrophils. Detected on cytoplasmic vesicles and lysosomes in immature bone marrow dendritic cells (By similarity) {ECO:0000250|UniProtKB:E9PTA2, ECO:0000250|UniProtKB:Q91YD4} [Isoform 2]: Cell membrane; Multi-pass membrane protein

Tissue Location

Highly expressed in brain and peripheral blood cells, such as neutrophils. Also detected in bone marrow, spleen, heart, liver and lung. Isoform 2 is found in neutrophil granulocytes

Volume

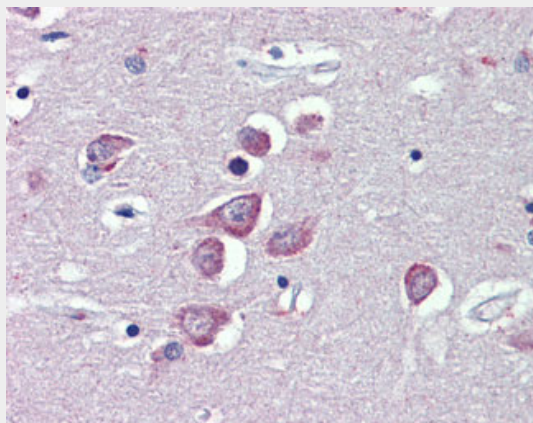
50 μl

TRPM2 Antibody (Internal) - Protocols

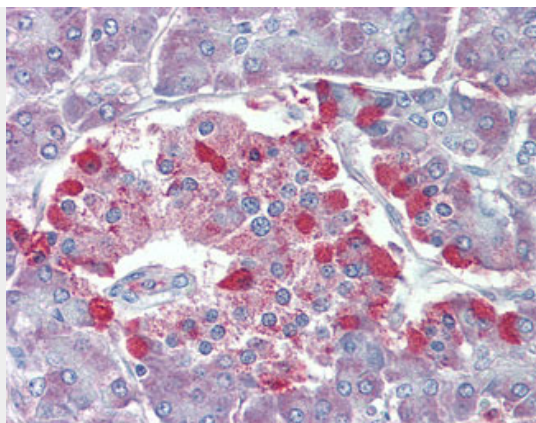
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

TRPM2 Antibody (Internal) - Images



Anti-TRPM2 antibody IHC of human brain, cortex.



Anti-TRPM2 antibody IHC of human pancreas.

TRPM2 Antibody (Internal) - Background

Nonselective, voltage-independent cation channel mediating sodium and calcium ion influx in response to oxidative stress. Extracellular calcium passes through the channel and acts from the intracellular side as a positive regulator in channel activation. Activated by ADP-ribose, nicotinamide adenine dinucleotide (NAD(+)), reactive nitrogen species and arachidonic acid. Inactivated by intracellular ATP. Confers susceptibility to cell death following oxidative stress. Isoform 2 does not seem to be regulated by ADPR. Has ADP-ribose pyrophosphatase activity.

TRPM2 Antibody (Internal) - References

Nagamine K., et al. Genomics 54:124-131(1998).
Wehage E., et al. J. Biol. Chem. 277:23150-23156(2002).
Zhang W., et al. J. Biol. Chem. 278:16222-16229(2003).
Uemura T., et al. Biochem. Biophys. Res. Commun. 328:1232-1243(2005).
Hayes P.D., et al. Submitted (DEC-2005) to the EMBL/GenBank/DDBJ databases.