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TRPM2 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP14200b

Specification

TRPM2 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession O94759

TRPM2 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 7226

Other Names
Transient receptor potential cation channel subfamily M member 2, 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

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

TRPM2 Antibody (C-term) Blocking Peptide - 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:<a

href="http://www.uniprot.org/citations/30467180" target="_blank">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 behavorial 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

TRPM2 Antibody (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides

TRPM2 Antibody (C-term) Blocking Peptide - Images

TRPM2 Antibody (C-term) Blocking Peptide - Background

The protein encoded by this gene is a calcium-permeablecation channel that is regulated by free intracellular ADP-ribose.The encoded protein is activated by oxidative stress and conferssusceptibility to cell death. Several alternatively splicedtranscript variants of this gene have been described, but theirfull-length nature is not known.

TRPM2 Antibody (C-term) Blocking Peptide - References

Romero, J.R., et al. Clin. Chim. Acta 411 (19-20), 1437-1440 (2010) :Yang, W., et al. J. Biol. Chem. 285(40):30411-30418(2010)Toth, B., et al. J. Biol. Chem. 285(39):30091-30102(2010)Kuhn, F.J., et al. J. Biol. Chem. 285(35):26806-26814(2010)Hong, C.W., et al. J. Immunol. 184(8):4401-4413(2010)