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Goat anti-TRPM2 Antibody

Peptide-affinity purified goat antibody
Catalog # AF4512a

Product Information

Application	IHC, IF, FC, Pep-ELISA
Primary Accession	O94759
Other Accession	NP_003298.1, NP_001307279.1, NP_001307280.1
Reactivity	Human, Mouse, Bovine
Host	Goat
Clonality	Polyclonal
Clone Names	TRPM2
Calculated MW	171198

Additional Information

Gene ID	7226
Other Names	TRPM2; transient receptor potential cation channel, subfamily M, member 2; EREG1; KNP3; LTRPC2; MGC133383; NUDT9H; NUDT9L1; TRPC7; estrogen responsive element associated gene 1; long transient receptor potential channel 2; transient receptor potential cha
Dilution	IHC~~1:100~500 IF~~1:50~200 FC~~1:10~50 Pep-ELISA~~N/A
Format	Supplied at 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin. Aliquot and store at -20°C. Minimize freezing and thawing.
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Goat anti-TRPM2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

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:11385575, PubMed:11509734, PubMed:11804595, PubMed:12594222, PubMed:15561722, PubMed:16601673, PubMed:19171771, PubMed:20660597, PubMed:25620041, PubMed:27068538, PubMed:27383051, PubMed:28775320, PubMed:29745897, PubMed:30467180, PubMed:31513012,

PubMed:34788616). Functions as a ligand-gated ion channel, gated by intracellular adenosine diphosphate ribose (ADP-ribose), Ca(2+), warm temperature, and oxidative stress (PubMed:19171771, PubMed:25620041, PubMed:28775320, 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). 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 Ca(2+) 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). 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) (PubMed:22493272). 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

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.