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Goat Anti-TRPM7 / LTRPC7 Antibody
Peptide-affinity purified goat antibody
Catalog # AF2117a

Specification

Goat Anti-TRPM7 / LTRPC7 Antibody - Product Information

Application	**IHC**
Primary Accession	Q96QT4
Other Accession	NP_060142, 54822
Reactivity	**Mouse, Rat, Fish**
Predicted	**Human, Pig, Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**0.5 mg/ml**
Isotype	**IgG**
Calculated MW	**212697**

Goat Anti-TRPM7 / LTRPC7 Antibody - Additional Information

Gene ID 54822

Other Names
Transient receptor potential cation channel subfamily M member 7, 2.7.11.1, Channel-kinase 1, Long transient receptor potential channel 7, LTrpC-7, LTrpC7, TRPM7, CHAK1, LTRPC7

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

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-TRPM7 / LTRPC7 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-TRPM7 / LTRPC7 Antibody - Protein Information

Name TRPM7

Synonyms CHAK1, LTRPC7

Function
Essential ion channel and serine/threonine-protein kinase. Divalent cation channel permeable to calcium and magnesium (PubMed:35561741). Has a central role in magnesium ion homeostasis and in the

regulation of anoxic neuronal cell death. Involved in TNF- induced necroptosis downstream of MLKL by mediating calcium influx. The kinase activity is essential for the channel function. May be involved in a fundamental process that adjusts plasma membrane divalent cation fluxes according to the metabolic state of the cell. Phosphorylates annexin A1 (ANXA1).

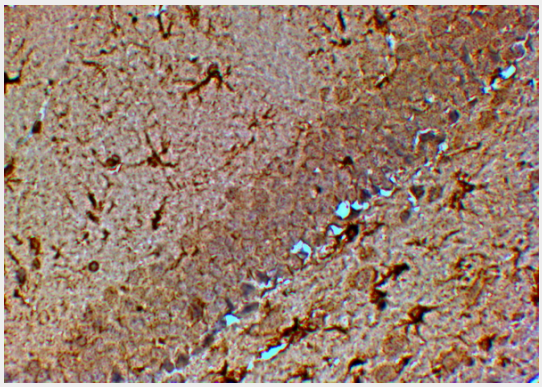
Cellular Location
Membrane; Multi-pass membrane protein

Goat Anti-TRPM7 / LTRPC7 Antibody - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Goat Anti-TRPM7 / LTRPC7 Antibody - Images



AF2117a (4 µg/ml) staining of paraffin embedded Mouse Hippocampus. Steamed antigen retrieval with citrate buffer pH 6, HRP-staining. Similar results were obtained after antigen retrieval at pH9.

Goat Anti-TRPM7 / LTRPC7 Antibody - Background

The protein encoded by this gene is both an ion channel and a serine/threonine protein kinase. The kinase activity is essential for the ion channel function, which serves to increase intracellular calcium levels and to help regulate magnesium ion homeostasis. Defects in this gene are a cause of amyotrophic lateral sclerosis-parkinsonism/dementia complex of Guam.

Goat Anti-TRPM7 / LTRPC7 Antibody - References

TRPM7-mediated Ca2+ signals confer fibrogenesis in human atrial fibrillation. Du J, et al. Circ Res, 2010 Mar 19. PMID 20075334. TRPM7 activates m-calpain by stress-dependent stimulation of p38 MAPK and c-Jun N-terminal kinase. Su LT, et al. J Mol Biol, 2010 Mar 5. PMID 20070945. Identification of TRPM7 channels in human intestinal interstitial cells of Cajal. Kim BJ, et al. World J Gastroenterol, 2009 Dec 14. PMID 19998500. Gene variation of the transient receptor potential cation channel, subfamily M, member 7 (TRPM7), and risk of incident ischemic stroke: prospective, nested, case-control study. Romero JR, et al. Stroke, 2009 Sep. PMID 19644062. Evidence that

TRPM7 is required for breast cancer cell proliferation. Guilbert A, et al. Am J Physiol Cell Physiol, 2009 Sep. PMID 19515901.