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TRPM7 (CHAK1) Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8052b

Specification

TRPM7 (CHAK1) Antibody (C-term) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	Q96QT4
Other Accession	Q9BXB2
Reactivity	**Human, Mouse**
Predicted	**Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**1821-1850**

TRPM7 (CHAK1) Antibody (C-term) - Additional Information

Gene ID 54822

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

Target/Specificity
This TRPM7 (CHAK1) antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1821-1850 amino acids from the C-terminal region of human TRPM7 (CHAK1).

Dilution
WB~~1:1000
IHC-P~~1:50~100

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
TRPM7 (CHAK1) Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

TRPM7 (CHAK1) Antibody (C-term) - 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).

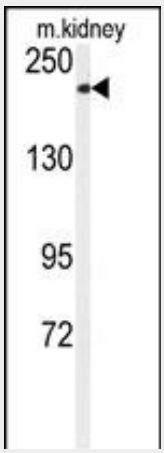
Cellular Location
Membrane; Multi-pass membrane protein

TRPM7 (CHAK1) Antibody (C-term) - Protocols

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

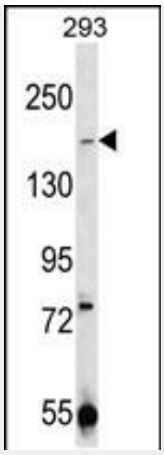
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

TRPM7 (CHAK1) Antibody (C-term) - Images

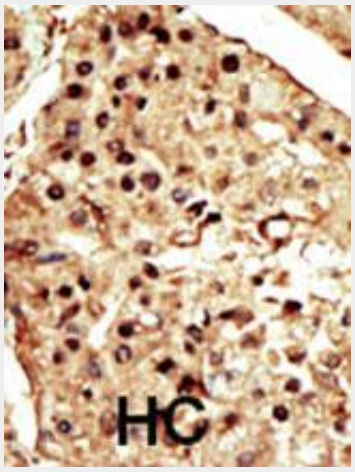


Western blot analysis of anti-CHAK1 Antibody (C-term) (Cat.#AP8052b) in mouse kidney tissue lysates (35ug/lane). CHAK1 (arrow) was detected using the purified Pab.

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CHAK1 Antibody (F1835) (Cat. #AP8052b) western blot analysis in 293 cell line lysates (35ug/lane).This demonstrates the CHAK1 antibody detected the CHAK1 protein (arrow).



Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.

TRPM7 (CHAK1) Antibody (C-term) - Background

TRPCs, mammalian homologs of the Drosophila transient receptor potential (trp) protein, are ion channels that are thought to mediate capacitative calcium entry into the cell. TRP-PLIK is a protein that is both an ion channel and a kinase. As a channel, it conducts calcium and monovalent cations to depolarize cells and increase intracellular calcium. As a kinase, it is capable of phosphorylating itself and other substrates. The kinase activity is necessary for channel function, as shown by its dependence on intracellular ATP and by the kinase mutants.[supplied by OMIM]

TRPM7 (CHAK1) Antibody (C-term) - References

Blume-Jensen P, et al. Nature 2001. 411: 355.
Cantrell D, J. Cell Sci. 2001. 114: 1439.
Jhiang S Oncogene 2000. 19: 5590.
Manning G, et al. Science 2002. 298: 1912.
Moller, D, et al. Am. J. Physiol. 1994. 266: C351-C359.
Robertson, S. et al. Trends Genet. 2000. 16: 368.
Robinson D, et al. Oncogene 2000. 19: 5548.
Van der Ven, P, et al. Hum. Molec. Genet. 1993. 2: 1889.

Vanhaesebroeck, B, et al. Biochem. J. 2000. 346: 561.
Van Weering D, et al. Recent Results Cancer Res. 1998. 154: 271.

TRPM7 (CHAK1) Antibody (C-term) - Citations

- Cyanidin Increases the Expression of Mg Transport Carriers Mediated by the Activation of PPARα in Colonic Epithelial MCE301 Cells.
- Zinc-induced neurotoxicity mediated by transient receptor potential melastatin 7 channels.
- Expression of ion channels of the TRP family in articular chondrocytes from osteoarthritic patients: changes between native and in vitro propagated chondrocytes.