

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).

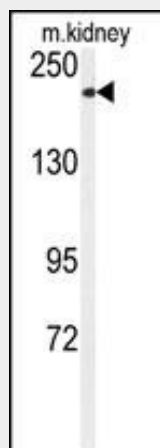
Cellular Location

Membrane; Multi-pass membrane protein

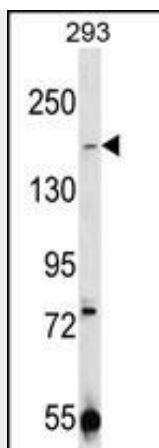
TRPM7 (CHAK1) Antibody (C-term) - Protocols

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

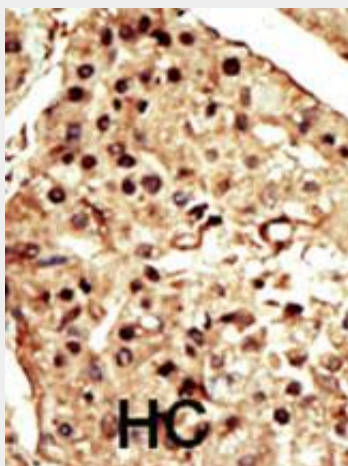
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

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.



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.
- Jiang 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 PPAR \$\alpha\$ 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.](#)