

**TRPM7 (CHAK1) Antibody (N-term) Blocking peptide**  
**Synthetic peptide**  
**Catalog # BP8052a****Specification**

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**TRPM7 (CHAK1) Antibody (N-term) Blocking peptide - Product Information**

Primary Accession [O96QT4](#)  
Other Accession [O9BXB2](#)

**TRPM7 (CHAK1) Antibody (N-term) Blocking peptide - 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**

The synthetic peptide sequence used to generate the antibody [AP8052a](/product/products/AP8052a) was selected from the N-term region of human CHAK1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**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.

**TRPM7 (CHAK1) Antibody (N-term) Blocking peptide - 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: <http://www.uniprot.org/citations/35561741> target="\_blank">35561741</a>). 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 (N-term) Blocking peptide - Protocols**

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

- [Blocking Peptides](#)

**TRPM7 (CHAK1) Antibody (N-term) Blocking peptide - Images****TRPM7 (CHAK1) Antibody (N-term) Blocking peptide - 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 (N-term) Blocking peptide - 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.