

**TRPM7 (15L9) Rabbit Monoclonal Antibody**  
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Catalog # AP93699**Specification**

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**TRPM7 (15L9) Rabbit Monoclonal Antibody - Product Information**

Application	WB, IF, FC, ICC
Primary Accession	<a href="#">O96QT4</a>
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Calculated MW	212697

**TRPM7 (15L9) Rabbit Monoclonal 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 kinase, cleaved form, TRPM7, CHAK1, LTRPC7 {ECO:0000303|PubMed:11385574}

**Storage Conditions**

-20°C

**TRPM7 (15L9) Rabbit Monoclonal Antibody - Protein Information**

Name TRPM7

Synonyms CHAK1, LTRPC7 {ECO:0000303|PubMed:113855}

**Function**

Bifunctional protein that combines an ion channel with an intrinsic kinase domain, enabling it to modulate cellular functions either by conducting ions through the pore or by phosphorylating downstream proteins via its kinase domain. The channel is highly permeable to divalent cations, specifically calcium (Ca<sup>2+</sup>), magnesium (Mg<sup>2+</sup>) and zinc (Zn<sup>2+</sup>) and mediates their influx (PubMed: [11385574](http://www.uniprot.org/citations/11385574), PubMed: [12887921](http://www.uniprot.org/citations/12887921), PubMed: [15485879](http://www.uniprot.org/citations/15485879), PubMed: [24316671](http://www.uniprot.org/citations/24316671), PubMed: [35561741](http://www.uniprot.org/citations/35561741), PubMed: [36027648](http://www.uniprot.org/citations/36027648)). Controls a wide range of biological processes such as Ca<sup>2+</sup>, Mg<sup>2+</sup> and Zn<sup>2+</sup> homeostasis, vesicular Zn<sup>2+</sup> release channel and intracellular Ca<sup>2+</sup> signaling, embryonic development, immune responses, cell motility, proliferation and differentiation (By similarity). The C-terminal alpha-kinase domain autophosphorylates cytoplasmic residues of TRPM7 (PubMed: [18365021](http://www.uniprot.org/citations/18365021)). In vivo, TRPM7 phosphorylates SMAD2, suggesting that TRPM7 kinase may play a role in activating SMAD signaling pathways. In vitro, TRPM7 kinase phosphorylates ANXA1 (annexin A1), myosin II isoforms

and a variety of proteins with diverse cellular functions (PubMed:<a href="http://www.uniprot.org/citations/15485879" target="\_blank">15485879</a>, PubMed:<a href="http://www.uniprot.org/citations/18394644" target="\_blank">18394644</a>).

#### Cellular Location

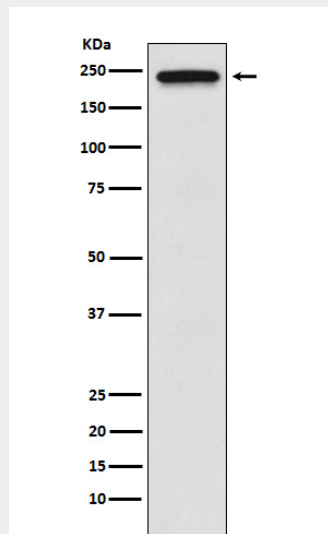
Cell membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:Q923J1}. Cytoplasmic vesicle membrane {ECO:0000250|UniProtKB:Q923J1}; Multi-pass membrane protein {ECO:0000250|UniProtKB:Q923J1}. Note=Localized largely in intracellular Zn(2+)-storage vesicles. {ECO:0000250|UniProtKB:Q923J1}

#### TRPM7 (15L9) Rabbit Monoclonal 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 Cytometry](#)
- [Cell Culture](#)

#### TRPM7 (15L9) Rabbit Monoclonal Antibody - Images



Western blot analysis of TRPM7 expression in HeLa cell lysate.