

**TRPM7 Rabbit mAb**  
Catalog # AP77166**Specification****TRPM7 Rabbit mAb - Product Information**

Application	WB
Primary Accession	<a href="#">Q96QT4</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Monoclonal Antibody
Calculated MW	212697

**TRPM7 Rabbit mAb - Additional Information**

Gene ID 54822

**Other Names**

TRPM7

**Dilution**

WB~~1/500-1/1000

**Format**

Liquid

**TRPM7 Rabbit mAb - 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 Rabbit mAb - 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 Rabbit mAb - Images

