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# TRPM7 (15L9) Rabbit Monoclonal Antibody

TRPM7 (15L9) Rabbit Monoclonal Antibody
Catalog # AP93699

## Product Information

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|---|---|
| **Application** | WB |
| **Primary Accession** | Q96QT4 |
| **Reactivity** | Human |
| **Clonality** | Monoclonal |
| **Calculated MW** | 212697 |

## Additional Information

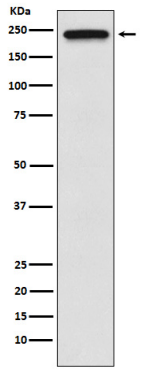
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| **Gene ID** | 54822 |
| **Other Names** | Transient receptor potential cation channel subfamily M member 7, 2.7.11.1, Channel-kinase 1, Long transient receptor potential channel 7, LTrpC-7, LTrpC7, TRPM7 kinase, cleaved form, TRPM7, CHAK1, LTRPC7 {ECO:0000303\|PubMed:11385574} |
| **Dilution** | WB~~1:1000 |
| **Storage Conditions** | -20℃ |

## Protein Information

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|---|---|
| **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 (Ca2+), magnesium (Mg2+) and zinc (Zn2+) and mediates their influx (PubMed:11385574, PubMed:12887921, PubMed:15485879, PubMed:24316671, PubMed:35561741, PubMed:36027648). Controls a wide range of biological processes such as Ca2(+), Mg(2+) and Zn(2+) homeostasis, vesicular Zn(2+) release channel and intracellular Ca(2+) 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). 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:15485879, PubMed:18394644). |

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| **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} |

## Images




Western blot analysis of TRPM7 expression in HeLa cell lysate.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.