10320 Camino Santa Fe, Suite G
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Anti-TRPM7 (Ser-1493), Phosphospecific Antibody

Catalog # AN1992

Specification

Anti-TRPM7 (Ser-1493), Phosphospecific Antibody - Product Information

Primary Accession	Q96QT4
Host	Rabbit
Clonality	Rabbit Polyclonal
Isotype	IgG
Calculated MW	212697

Anti-TRPM7 (Ser-1493), Phosphospecific Antibody - Additional Information

Gene ID	54822

Other Names
TRPM7 TrpC7, LTrpC-7, ChaK1, LTRPC7, TRP

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Anti-TRPM7 (Ser-1493), Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping
Blue Ice

Anti-TRPM7 (Ser-1493), Phosphospecific 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 Cytomety
- Cell Culture

Anti-TRPM7 (Ser-1493), Phosphospecific Antibody - Images

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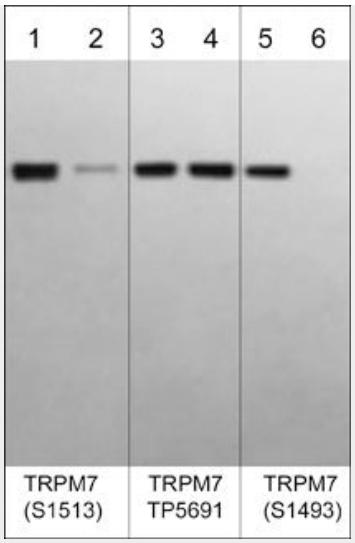

Western blot image of human autophosphorylated TRPM7 C-terminal kinase domain (lanes 1-6). The blot was treated with lambda phosphatase to dephosphorylate TRPM7 phosphosites (lanes 2, 4, & 6). The blot was probed with rabbit polyclonals anti-TRPM7 (Ser-1513), phospho-specific (lanes 1 & 2), anti-TRPM7 (a.a.1484-1497), TP5691 antibody (lanes 3 & 4), or anti-TRPM7 (Ser-1493), phospho-specific (lanes 5 & 6).

Anti-TRPM7 (Ser-1493), Phosphospecific Antibody - Background

The transient receptor potential melastatin (TRPM) subfamily of cation-permeable TRP channels is ubiquitously expressed in mammalian tissues. This family includes TRPM1-8. In addition to acting as a calcium-permeant channel, TRPM6 and TRPM7 possess an inherent serine/threonine kinase activity. TRPM7 specifically is involved with cellular magnesium homeostasis and neurotransmitter release. Due to the magnesium inhibition, TRPM7's ion channel activity is very low. TRPM7 has been implicated in cell proliferation and migration during cancer progression, and its expression levels correlate with prognosis in breast cancer. TRPM7 kinase activation leads to massive autophosphorylation of the C-terminal region, including phosphorylation of Ser-1493, Ser-1513, and Ser-1569. Both Ser-1513 and Ser-1569 phosphorylation is required for kinase activity, and phosphorylation of Ser-1513 may inhibit Caspase-mediated cleavage of the C-terminal tail. Thus, TRPM7 is a multifunctional transmembrane protein with roles in cell signaling, proliferation, migration, and death.