10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-TRPM7 (Extracellular region) Antibody

Catalog # AN1990

Product Information

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

Additional Information

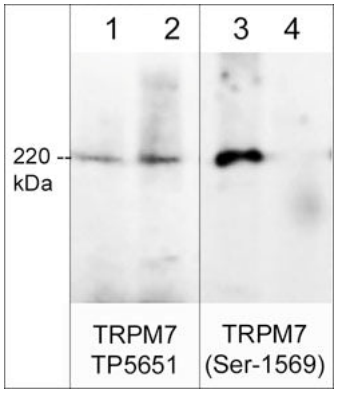
Gene ID	54822
Other Names	TRPM7 TrpC7, LTrpC-7, ChaK1, LTRPC7, TRP
Dilution	WB~~1:1000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Anti-TRPM7 (Extracellular region) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.
Shipping	Blue Ice

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.

Images

Western blot image of rat PC12 cells (lanes 1-4). The blot was treated with lambda phosphatase to dephosphorylate TRPM7 (lanes 2 & 4). The blot was probed with rabbit polyclonals anti-TRPM7 (Extracellular



region) AN1990 (lanes 1 & 2) or anti-TRPM7 (Ser-1569) phospho-specific (lanes 3 & 4).

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