

Product datasheet for RC220615

TRPM8 (NM_024080) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	TRPM8 (NM_024080) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	TRPM8
Synonyms:	LTrpC-6; LTRPC6; trp-p8; TRPP8
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC220615 representing NM_024080 Red=Cloning site Blue=ORF Green=Tags(s)

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GCC**CGATCGCC**

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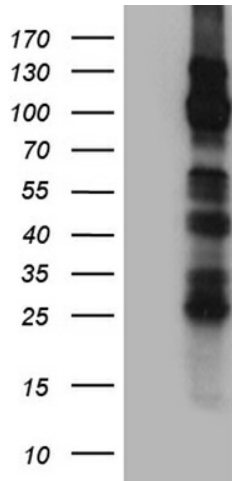
Protein Sequence:

>RC220615 representing NM_024080
 Red=Cloning site Green=Tags(s)

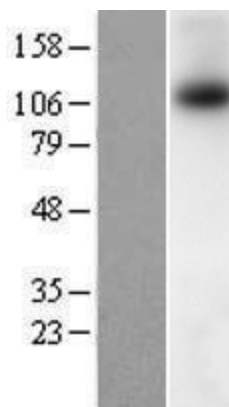
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TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	<ol style="list-style-type: none">1. Centrifuge at 5,000xg for 5min.2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.3. Close the tube and incubate for 10 minutes at room temperature.4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	<u>NM_024080.5</u>
RefSeq Size:	5674 bp
RefSeq ORF:	3315 bp
Locus ID:	79054
UniProt ID:	<u>Q7Z2W7</u>
Cytogenetics:	2q37.1
Domains:	ion_trans
Protein Families:	Druggable Genome, Ion Channels: Transient receptor potential, Transmembrane
MW:	127.5 kDa
Gene Summary:	Receptor-activated non-selective cation channel involved in detection of sensations such as coolness, by being activated by cold temperature below 25 degrees Celsius. Activated by icilin, eucalyptol, menthol, cold and modulation of intracellular pH. Involved in menthol sensation. Permeable for monovalent cations sodium, potassium, and cesium and divalent cation calcium. Temperature sensing is tightly linked to voltage-dependent gating. Activated upon depolarization, changes in temperature resulting in graded shifts of its voltage-dependent activation curves. The chemical agonist menthol functions as a gating modifier, shifting activation curves towards physiological membrane potentials. Temperature sensitivity arises from a tenfold difference in the activation energies associated with voltage-dependent opening and closing. In prostate cancer cells, shows strong inward rectification and high calcium selectivity in contrast to its behavior in normal cells which is characterized by outward rectification and poor cationic selectivity. Plays a role in prostate cancer cell migration (PubMed:25559186). Isoform 2 and isoform 3 negatively regulate menthol- and cold-induced channel activity by stabilizing the closed state of the channel.[UniProtKB/Swiss-Prot Function]

Product images:


HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY TRPM8 (Cat# RC220615, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-TRPM8 (Cat# [TA811228])(1:2000). Positive lysates [LY402977] (100ug) and [LC402977] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY402977]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC220615 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).