

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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Protein Sequence:

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

MSFRAARLSMRNRRNDTLDSTRTLYSSASRSTDLSESDLVNFIQANFKKRECVFFTKDSKATENVCKC
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TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

RefSeq ORF: 3315 bp

Locus ID: 79054

UniProt ID: [Q7Z2W7](#)

Cytogenetics: 2q37.1

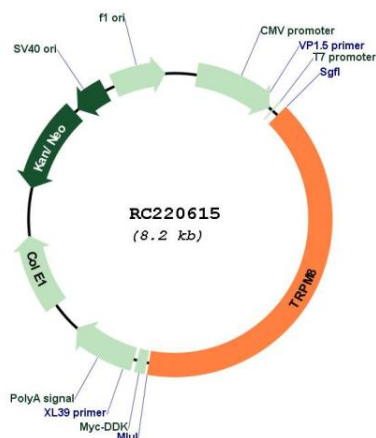
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Protein Families: Druggable Genome, Ion Channels: Transient receptor potential, Transmembrane

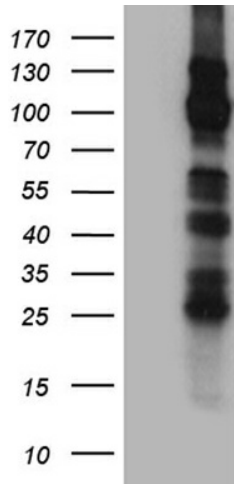
MW: 127.5 kDa

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]

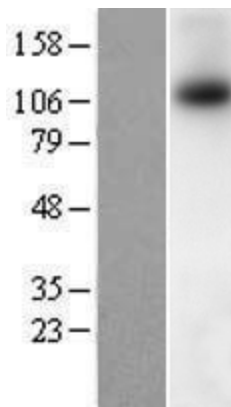
Product images:



Circular map for RC220615



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]).