

Product datasheet for **TP762324**

TRPM8 (NM_024080) Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Human transient receptor potential cation channel, subfamily M, member 8 (TRPM8), Met1-Pro300, with N-terminal His tag, expressed in E.coli, 50ug
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	A DNA sequence encoding the region(Met1-Pro300) of TRPM8
Tag:	N-His
Predicted MW:	34.3 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	50 mM Tris-HCl, pH 8.0, 8 M urea
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C after receiving vials.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	NP_076985
Locus ID:	79054
UniProt ID:	Q7Z2W7
RefSeq Size:	5674
Cytogenetics:	2q37.1
RefSeq ORF:	3312
Synonyms:	LTrpC-6; LTRPC6; trp-p8; TRPP8



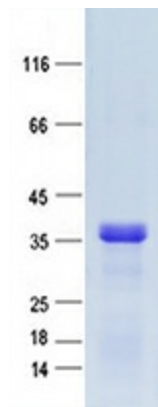
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Summary:

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]

Protein Families:

Druggable Genome, Ion Channels: Transient receptor potential, Transmembrane

Product images:

Purified recombinant protein TRPM8 was analyzed by SDS-PAGE gel and Coomassie Blue Staining.