

**HDFP676**

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## Product Information

<b>Product SKU:</b>	HDFP676	<b>Expression Host:</b>	HEK293	<b>Size:</b>	10µg
<b>Target:</b>	TRPM8	<b>Tag:</b>	C-Flag Tag		

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## Additional Information

<b>Conjugate:</b>	Unconjugated	<b>Uniprot ID:</b>	Q7Z2W7
<b>Molecular Weight:</b>	The human full length TRPM8 protein has a MW of 127.7kDa		

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## Protein Information

**Background:** 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]

**Synonyms:** LTRPC6, LTrpC-6, TRPP8, trp-p8

**Protein Description:** Human TRPM8 full length protein-synthetic nanodisc

- Formulation:** Lyophilized from nanodisc solubilization buffer (20 mM Tris-HCl, 150 mM NaCl, pH 8.0). Normally 5% – 8% trehalose is added as protectants before lyophilization. Please see Certificate of Analysis for specific instructions. Do not use solvents with a pH below 6.5 or those containing high concentrations of divalent metal ions (greater than 5 mM) in subsequent experiments.
- Protein Pathways:** -
- Protein Families:** Ion Channels: Transient receptor potential.
- Usage:** Research use only
- Storage & Shipping:** Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.