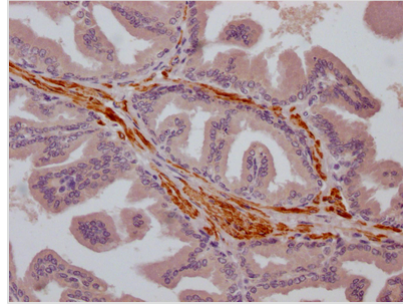




TRPM8 Antibody

Product Code	CSB-RA186773A0HU
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	Q7Z2W7
Immunogen	A synthesized peptide derived from human TRPM8
Species Reactivity	Human
Tested Applications	ELISA, IHC; Recommended dilution: IHC:1:50-1:200
Relevance	<p>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.</p>
Form	Liquid
Conjugate	Non-conjugated
Storage Buffer	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	Affinity-chromatography
Isotype	Rabbit IgG
Clonality	Monoclonal
Product Type	Recombinant Antibody
Immunogen Species	Homo sapiens (Human)
Research Area	Neuroscience; Cancer; Metabolism; Signal transduction
Gene Names	TRPM8
Accession NO.	2G7
Image	



IHC image of CSB-RA186773A0HU diluted at 1:100 and staining in paraffin-embedded human prostate cancer performed on a Leica Bond™ system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.

Description

TRPM8 is a thermally regulated non-selective Ca^{2+} -permeable cation channel and plays a key role in calcium homeostasis. TRPM8 is located in a variety of organs and tissues, where it regulates a variety of activities including cell proliferation, migration, apoptosis, inflammatory responses, immunomodulatory effects, pain, and vascular muscle tension. Cold temperatures and cooling agents can activate TRPM8. TRPM8 has been found to be upregulated in malignancies with high levels of autophagy, such as prostate, pancreatic, breast, lung, and colon cancers.

CUSABIO designed the vector clones for the expression of a recombinant TRPM8 antibody in mammalian cells. The vector clones were obtained by inserting the TRPM8 antibody heavy and light chains into the plasma vectors. The recombinant TRPM8 antibody was purified from the culture medium through Affinity-chromatography. It can be used to detect TRPM8 protein from Human in the ELISA, IHC.