

TRPM8 Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP52018

Specification

TRPM8 Antibody - Product Information

Application	WB, E
Primary Accession	O7Z2W7
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	128 KDa

TRPM8 Antibody - Additional Information

Gene ID 79054

Other Names

Transient receptor potential cation channel subfamily M member 8, Long transient receptor potential channel 6, LTrpC-6, LTrpC6, Transient receptor potential p8, Trp-p8, TRPM8, LTRPC6, TRPP8

Format

0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%

Storage

Store at -20 °C. Stable for 12 months from date of receipt

TRPM8 Antibody - Protein Information

Name TRPM8

Synonyms LTRPC6, TRPP8

Function

Non-selective ion channel permeable to monovalent and divalent cations, including Na(+), K(+), and Ca(2+), with higher permeability for Ca(2+). Activated by multiple factors, such as temperature, voltage, pressure, and changes in osmolality. Activated by cool temperatures (<23-28 degrees Celsius) and by chemical ligands evoking a sensation of coolness, such as menthol and icilin therefore plays a central role in the detection of environmental cold temperatures (PubMed: 15306801, PubMed: 15852009, PubMed: 16174775, PubMed: 25559186, PubMed: 37857704). TRPM8 is a voltage-dependent channel; its activation by cold or chemical ligands shifts its voltage thresholds towards physiological membrane potentials, leading to the opening of the channel (PubMed: 15306801)

target="_blank">15306801). In addition to its critical role in temperature sensing, regulates basal tear secretion by sensing evaporation-induced cooling and changes in osmolality (By similarity). May plays a role in prostate cancer cell migration (PubMed:16174775, PubMed:25559186).

Cellular Location

Cell membrane; Multi-pass membrane protein. Membrane raft {ECO:0000250|UniProtKB:Q8R4D5}. Endoplasmic reticulum membrane. Note=Lipid raft association modulates TRPM8 channel activity (By similarity) Located in the endoplasmic reticulum in prostate cancer cells (PubMed:11325849, PubMed:16174775). {ECO:0000250|UniProtKB:Q8R4D5, ECO:0000269|PubMed:11325849, ECO:0000269|PubMed:16174775}

Tissue Location

Expressed in prostate. Also expressed in prostate tumors and in non-prostatic primary tumors such as colon, lung, breast and skin tumors.

TRPM8 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

TRPM8 Antibody - Images

TRPM8 Antibody - 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. Isoform 2 and isoform 3 negatively regulate menthol- and cold-induced channel activity by stabilizing the closed state of the channel.

TRPM8 Antibody - References

Tsavalier L., et al. *Cancer Res.* 61:3760-3769(2001).
Thebault S., et al. *J. Biol. Chem.* 280:39423-39435(2005).
Bidaux G., et al. *J. Biol. Chem.* 287:2948-2962(2012).
Mural R.J., et al. Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
Sano Y., et al. Submitted (MAY-2001) to the EMBL/GenBank/DDBJ databases.