

TRPM8 Antibody (Center)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP11769c

Specification

TRPM8 Antibody (Center) - Product Information

Application	IF, WB, IHC-P,E
Primary Accession	O7Z2W7
Other Accession	NP_076985.4
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	263-292

TRPM8 Antibody (Center) - 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

Target/Specificity

This TRPM8 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 263-292 amino acids from the Central region of human TRPM8.

Dilution

IF~~1:10~50
WB~~1:1000
IHC-P~~1:50~100

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

TRPM8 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

TRPM8 Antibody (Center) - Protein Information

Name TRPM8

Synonyms LTRPC6, TRPP8

Function 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.

Cellular Location

Cell membrane; Multi-pass membrane protein. Membrane raft. Endoplasmic reticulum membrane. Note=Localizes to membrane rafts but is also located in the cell membrane outside of these regions where channel response to cold is enhanced compared to membrane rafts (By similarity). Located in the endoplasmic reticulum in prostate cancer cells.

Tissue Location

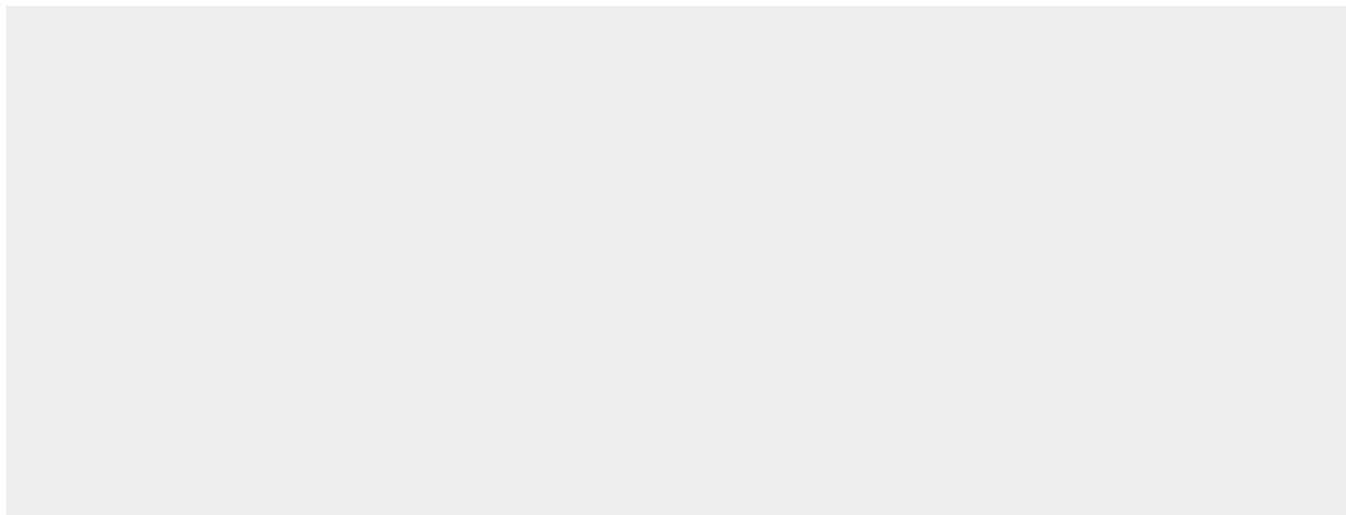
Expressed in prostate. Also expressed in prostate tumors and in non-prostatic primary tumors such as colon, lung, breast and skin tumors.

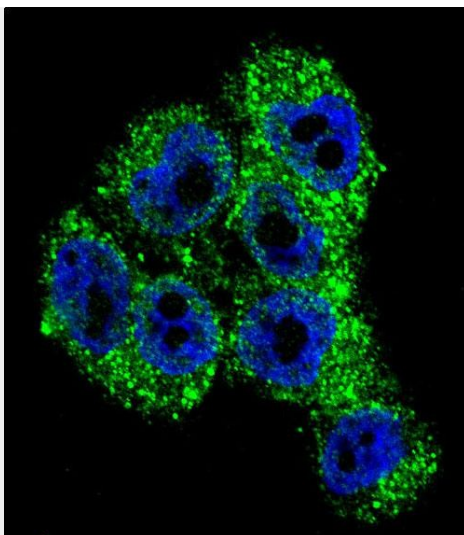
TRPM8 Antibody (Center) - Protocols

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

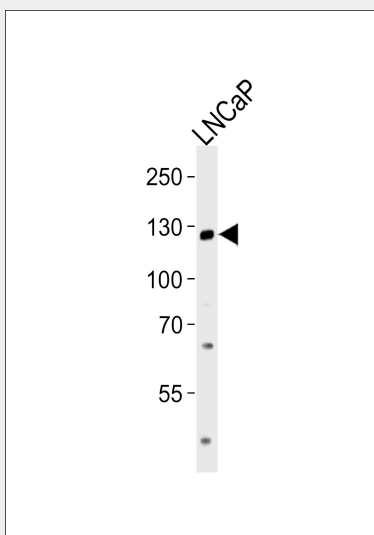
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

TRPM8 Antibody (Center) - Images

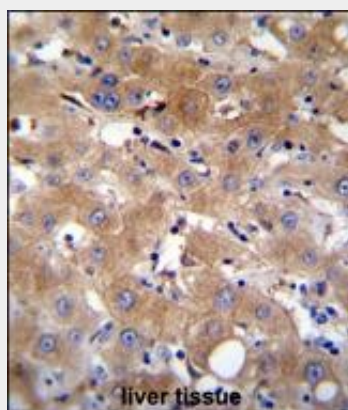




Confocal immunofluorescent analysis of TRPM8 Antibody (Center)(Cat#AP11769c) with A375 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). DAPI was used to stain the cell nuclear (blue).



Western blot analysis of lysate from LNCaP cell line, using TRPM8 Antibody (Center)(Cat. #AP11769c). AP11769c was diluted at 1:1000 at each lane. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysate at 35ug per lane.



TRPM8 Antibody (Center) (Cat. #AP11769c) immunohistochemistry analysis in formalin fixed and

paraffin embedded human liver tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of TRPM8 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

TRPM8 Antibody (Center) - 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 agonists 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.

TRPM8 Antibody (Center) - References

Yee, N.S., et al. Cancer Lett. 297(1):49-55(2010) Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010) Kuhn, F.J., et al. J. Biol. Chem. 285(35):26806-26814(2010) Gkika, D., et al. Oncogene 29(32):4611-4616(2010) Van Haute, C., et al. ScientificWorldJournal 10, 1597-1611 (2010) :

TRPM8 Antibody (Center) - Citations

- [Oxidant-induced increase in norepinephrine secretion from PC12 cells is dependent on TRPM8 channel-mediated intracellular calcium elevation.](#)