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TRPM8 Antibody (Center R536)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP8181c

Specification

TRPM8 Antibody (Center R536) - Product Information

Application	**WB, IHC-P,E**
Primary Accession	Q7Z2W7
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**521-552**

TRPM8 Antibody (Center R536) - 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 521-552 amino acids from the Central region of human TRPM8.

Dilution
WB~~1:1000
IHC-P~~1:10~50

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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 R536) is for research use only and not for use in diagnostic or therapeutic procedures.

TRPM8 Antibody (Center R536) - 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 R536) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

TRPM8 Antibody (Center R536) - Images

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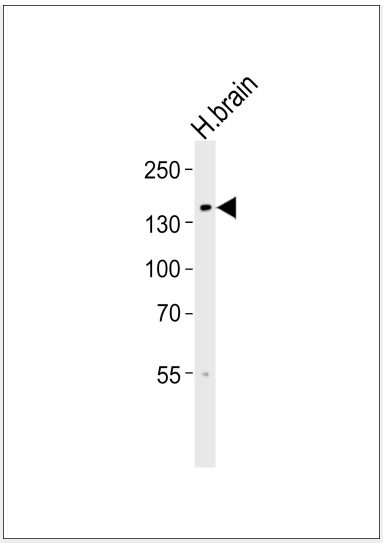
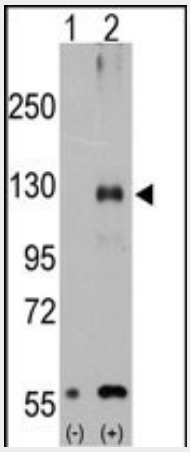
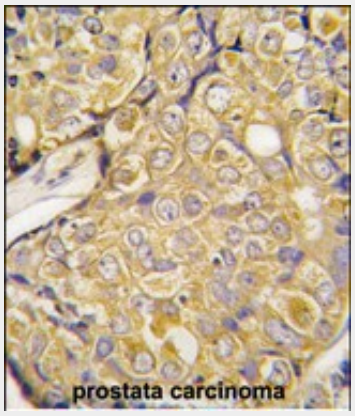


Western blot analysis of lysate from human brain tissue lysate, using TRPM8 Antibody (Center R536)(Cat. #AP8181c). AP8181c was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysate at 35ug.



Western blot analysis of TRPM8 (arrow) using rabbit polyclonal TRPM8 Antibody (Center R536)(Cat.#AP8181c).293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected with the TRPM8 gene (Lane 2) (Origene Technologies).



Formalin-fixed and paraffin-embedded human prostata carcinoma tissue reacted with TRPM8 antibody (Center R536) (Cat.#AP8181c), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

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TRPM8 Antibody (Center R536) - Background

TRPM8 is a receptor-activated non-selective cation channel involved in detection of sensations such as coolness, by being activated by cold temperature below 25 degrees Celsius. It is activated by icilin, eucalyptol, menthol, cold and modulation of intracellular pH and involved in menthol sensation. It is permeable for monovalent cations sodium, potassium, and cesium and divalent cation calcium.

TRPM8 Antibody (Center R536) - References

Tsavaler L.,Cancer Res. 61:3760-3769(2001).
Kiessling A.,Prostate 56:270-279(2003).
Bodding,M.,Cell Calcium 42 (6), 618-628 (2007)