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Product Information

Anti-TRPV4

(Transient Receptor Potential Channel V4; OTRPC4)
Developed in Rabbit, Affinity Isolated Antibody

Product Number **T 9075**

Product Description

Anti-TRPV4 was developed in rabbit using a synthetic peptide CDGHQQGYAPKWRAEDAPL corresponding to residues 853-871 of Rat TRPV4 as the immunogen. This sequence has 17/19 residues identical in mouse and 16/19 residues identical in human. The antibody was affinity isolated on immobilized immunogen.

Anti-TRPV4 recognizes TRPV4 from ND7/23 (mouse neuroblastoma x rat DRG neuron hybrid cell line) lysate by immunoblotting.

Transient receptor potential (TRP) cation channels are a large family of plasma membrane, non-selective cation channels that are expressed in excitable and non-excitable cells.¹ The TRPV subfamily consists of six members, TRPV1-6. TRPV1-4 channels are thermosensitive, nonselective cation channels that are also activated by a variety of pain-causing stimuli. TRPV4 (also named OTRPC4) is activated under hypotonic conditions and serves as an osmoreceptor.² TRPV4 is expressed in brain, liver, kidney, heart, testis, salivary gland, and has recently been found in lung as well.³

Reagent

The antibody is supplied as lyophilized powder from phosphate buffered saline containing 1% BSA and 0.05% sodium azide as preservative.

Precautions and Disclaimer

Due to the sodium azide content, a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazards and safe handling.

Preparation Instructions

Reconstitute the lyophilized vial with 0.05 ml or 0.2 ml deionized water, depending on package size. Further dilutions should be made using a carrier protein such as BSA (1%).

Storage/Stability

Lyophilized powder can be stored intact at room temperature for several weeks. For extended storage, it should be stored at -20 °C or below. The reconstituted solution can be stored at 2-8 °C for up to 2 weeks. For longer storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. Storage in "frost-free" freezers is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Centrifuge all antibody preparations before use (10000 x g 5 min). Working dilution samples should be discarded if not used within 12 hours.

Product Profile

The recommended working dilution is 1:200 for immunoblotting.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

References

1. Huang, C.L., The transient receptor potential superfamily of ion channels, *J. Am. Soc. Nephrol.* **15**, 1690-1699 (2004).
2. Nilius, B., et al., TRPV4 calcium entry channel: a paradigm for gating diversity, *Am. J. Physiol. Cell Physiol.*, **286**, C195-205 (2004).
3. Jia, Y., et al., Functional TRPV4 channels are expressed in human airway smooth muscle cells, *Am. J. Physiol. Lung Cell Mol. Physiol.*, **287**, L272-278 (2004).

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