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Product Information

Anti-TRPV6

(Anti-Transient Receptor Potential Channel V6;
Anti-CaT1)
produced in rabbit, affinity isolated antibody

Catalog Number **T 3201**

Product Description

Anti-TRPV6 was developed in rabbit using a synthetic peptide (C)NRGLEDGESWEYQI corresponding to residues 712-725 of human TRPV6 as the immunogen. This sequence has 13/14 residues identical in rat and mouse. The antibody was affinity isolated on immobilized immunogen.

Anti-TRPV6 recognizes TRPV6 from human prostate cancer cell line PC3 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.² TRPV5 (ECaC) and TRPV6 (CaT1) are epithelial Ca²⁺ channels, form constitutively open channels, and share a high degree of homology (about 66%) with differences in the N- and C-terminus. In contrast to other members of the TRP family, TRPV5 and TRPV6 are highly Ca²⁺ selective and mediate the Ca²⁺ influx in 1,25-dihydroxyvitamin D(3)-responsive epithelia where they are assumed to have an important role in Ca²⁺ reabsorption.^{3,4} TRPV5 is preferentially expressed in kidney, while TRPV6 is highly expressed in the placenta, small intestine and kidney and was found to be upregulated in prostate cancer tissue.⁵

Reagent

The antibody is supplied as lyophilized powder from phosphate buffered saline, pH 7.4, 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 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, or 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. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

The recommended working dilution is 1:200 for immunoblotting. It is recommended to add 0.5% Tween[®]-20 to the antibody solution.

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

References

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- Nilius, B., et al., TRPV4 calcium entry channel: a paradigm for gating diversity, *Am. J. Physiol. Cell Physiol.*, **286**, C195-205 (2004).
- van Abel, M., et al., The epithelial calcium channels TRPV5 and TRPV6: regulation and implications for disease, *Naunyn Schmiedebergs Arch. Pharmacol.*, **371**, 295-306 (2005).

4. Chang, Q., et al., Molecular determinants in TRPV5 channel assembly, *J. Biol. Chem.*, **279**, 54304-54311 (2004).

5. Wissenbach, U., et al., TRPV6 and prostate cancer: cancer growth beyond the prostate correlates with increased TRPV6 Ca²⁺ channel expression, *Biochem. Biophys. Res. Commun.*, **322** 1359-1363 (2004).

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