Product Information Sheet

Polyclonal Anti- Transient Receptor Potential cation channel, subfamily V, member 1, TRPV1 *(Magnetic Bead Conjugate)*

Catalogue No. PA1323-M

Lot No. 09L01

Ig type rabbit IgG

Size 100μg/vial

Specificity

Human, rat, mouse.
No cross reactivity with other proteins.

Recommended application

ImmunoPrecipitation (IP)

Immunogen

A synthetic peptide corresponding to a sequence at the N-terminal of human TRPV1, identical to the related rat and mouse sequence.

Purity

Immunogen affinity purified.

Contents

Each vial contains 1mg/ml Magnetic Bead in PBS, pH 7.2, 0.05mg NaN_3.

Storage

Store at 4˚C for frequent use.

Description

This Antagene antibody is immobilized by the covalent reaction of hydrazinonicotinamide-modified antibody with formylbenzamide-modified magnetic beads. It is useful for immunoprecipitation

BACKGROUND

The transient receptor potential cation channel, subfamily V, member 1 (TRPV1), also known as the capsaicin receptor is a protein which in humans is encoded by the TRPV1 gene.[1,2] TRPV1 (also called Vanilloid receptor type 1) is a ligand-gated nonselective cation channel that is considered to be an important integrator of various pain stimuli such as endogenous lipids, capsaicin, heat, and low pH. In addition to expression in primary afferents, TRPV1 is also expressed in the CNS. Cui M et al. (2006) demonstrate that TRPV1 receptors in the CNS play an important role in pain mediated by central sensitization. And the significant CNS penetration is necessary for a TRPV1 antagonist to produce broad-spectrum analgesia.[3] And TRPV1 also participates in normal bladder function and is essential for normal mechanically evoked purinergic signaling by the urothelium.[4]

REFERENCE

1. Caterina MJ, Schumacher MA, Tominaga M, Rosen TA, Levine JD, Julius D (October 1997). "The capsaicin receptor: a heat-activated ion channel in the pain pathway". Nature 389 (6653): 816–24. doi:10.1038/39807. PMID 9349813.
2. Xue Q, Yu Y, Trilk SL, Jong BE, Schumacher MA (August 2001). "The genomic organization of the gene encoding the vanilloid receptor: evidence for multiple splice variants". Genomics 76 (1-3): 14–20. doi:10.1006/geno.2001.6582. PMID 11549313.
3. Cui M, Honore P, Zhong C, Gauvin D, Mikusa J, Hernandez G, Chandran P, Gomtsyan A, Brown B, Bayburt EK, Marsh K, Bianchi B, McDonald H, Niforatos W, Neelands TR, Moreland RB, Decker MW, Lee CH, Sullivan JP, Faltynek CR (2006). "TRPV1 receptors in the CNS play a key role in broad-spectrum analgesia of TRPV1 antagonists". J. Neurosci. 26 (37): 9385–93. doi:10.1523/JNEUROSCI.1246-06.2006. PMID 16971522.
4. Birder, L. A.; Nakamura, Y.; Kiss, S.; Nealen, M. L.; Barrick, S.; Kanai, A. J.; Wang, E.; Ruiz, G.; de Groat, W. C.; Apodaca, G.; Watkins, S.; Caterina, M. J. : Altered urinary bladder function in mice lacking the vanilloid receptor TRPV1. Nature Neurosci. 5: 856-860, 2002.

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