



Polyclonal Anti- Transient Receptor Potential cation channel, subfamily V, member 1, TRPV1

Catalogue No. PA1323

Lot No. 09L01

Ig type rabbit IgG

Size 100µg/vial

Specificity

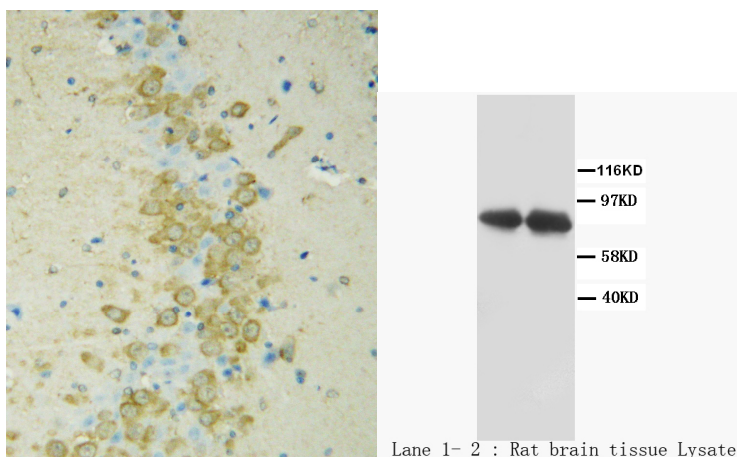
Human, rat, mouse.

No cross reactivity with other proteins.

Recommended application

Western blot

Immunohistochemistry (P)



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.

Application

	Concentration	Tested Species	Concluded Species	Antigen Retrieval
WB	1µg/ml	Rat	Ms	-
IHC-P	2µg/ml	Hu, Rat	Ms	By Heat
IHC-F	-	-	-	-
ICC	-	-	-	-

Other applications have not been tested.

Optimal dilutions should be determined by end user.

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Thimerosal, 0.05mg NaN₃.

Reconstitution

0.2ml of distilled water will yield a concentration of 500µg/ml.

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for longer time.

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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

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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.