

Thermosensitive TRP Channel Anti Mouse TRPA1 Polyclonal Antibody

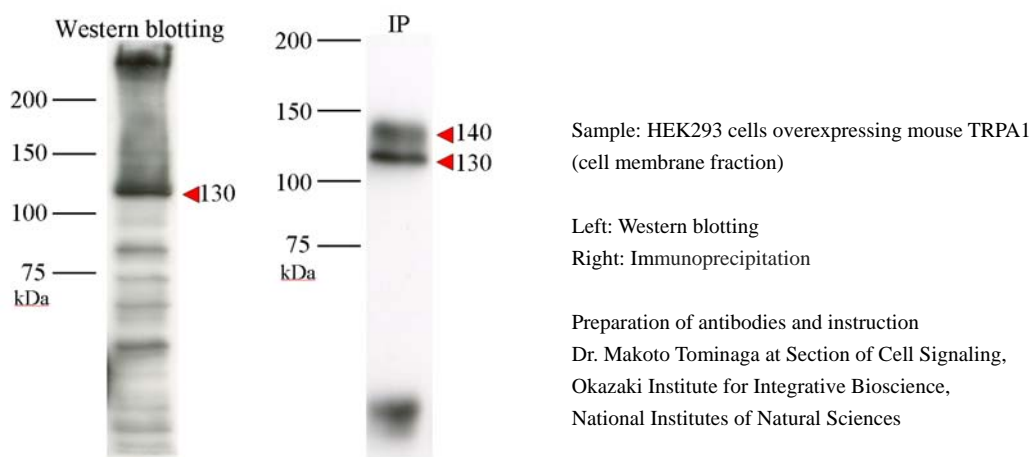
Mammals feel a wide range of temperature spanning from cold to heat with specialized neurons in the peripheral nervous system. With this range, temperatures over about 43 degrees C and below about 15 degrees C evoke not only a thermal sensation, but also a feeling of pain.

Nine thermosensitive ion channels have been reported, all of which belong to TRP (transient receptor potential) superfamily. They are expressed in sensory tissues, such as nociceptors and skin. Among them, TRPA1 (TRP cation channel, subfamily A, member 1) has been identified as cold-sensitive ion channel. TRPA1 is activated at approximately 17 degrees C, a temperature that is reported as painfully cold by humans.

In addition to noxious cold, TRPA1 is activated pungent ingredients present in mustard, garlic, ginger, clove, wintergreen and cinnamon all and found in a subset of nociceptive sensory neurons where it is coexpressed with TRPV1/VR1 (capsaicin/heat receptor). Moreover, TRPA1 has been proposed to be a component of the mechanosensitive transduction channel of vertebrate hair cells.

This antibody will be very useful to research the nocifensive (thermosensitive and mechanosensitive) response to pain.

Package Size	50µg (200µL/vial)
Format	Rabbit polyclonal antibody 0.25mg/mL
Buffer	PBS [containing 2% Block Ace as a stabilizer, 0.1% Proclin as a bacteriostat]
Storage	Store below -20°C Once thawed, store at 4°C. Repeated freeze-thaw cycles should be avoided.
Purification method	This antibody was established from the serum of a rabbit immunized with the partial peptide corresponding to amino acid 12-24 of mouse TRPA1, and purified by peptide affinity chromatography.
Working dilution	For Western blotting : 1.6 µg/ml For Immunoprecipitation : 1.6 µg/ml



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【Reference】

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Thermosensation and pain.
J Neurobiol. 2004 Oct;61(1):3-12. Review.
- 2 Story GM. et al:
ANKTM1, a TRP-like channel expressed in nociceptive neurons, is activated by cold temperatures.
Cell. 2003 Mar 21;112(6):819-29.
- 3 Jordt SE. et al:
Mustard oils and cannabinoids excite sensory nerve fibres through the TRP channel ANKTM1.
Nature. 2004 Jan 15;427(6971):260-5.
- 4 Corey DP. et al:
TRPA1 is a candidate for the mechanosensitive transduction channel of vertebrate hair cells.
Nature. 2004 Dec 9;432(7018):723-30.

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