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TRPA1 Antibody (Internal)
Rabbit Polyclonal Antibody
Catalog # ALS11065

Specification

TRPA1 Antibody (Internal) - Product Information

Application	**IHC**
Primary Accession	O75762
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**128kDa KDa**

TRPA1 Antibody (Internal) - Additional Information

Gene ID 8989

Other Names
Transient receptor potential cation channel subfamily A member 1, Ankyrin-like with transmembrane domains protein 1, Transformation-sensitive protein p120, TRPA1, ANKTM1

Target/Specificity
Human TRPA1. BLAST analysis of the peptide immunogen showed no homology with other human proteins.

Reconstitution & Storage
Long term: -70°C; Short term: +4°C

Precautions
TRPA1 Antibody (Internal) is for research use only and not for use in diagnostic or therapeutic procedures.

TRPA1 Antibody (Internal) - Protein Information

Name TRPA1 (HGNC:497)

Function
Ligand-activated Ca(2+)-permeable, nonselective cation channel involved in pain detection and possibly also in cold perception, oxygen concentration perception, cough, itch, and inner ear function (PubMed:17259981, PubMed:21195050, PubMed:21873995, PubMed:23199233, PubMed:25389312, PubMed:33152265). Has a relatively high Ca(2+) selectivity, with a preference for divalent over monovalent cations (Ca(2+) > Ba(2+) > Mg(2+) > NH4(+) > Li(+) > K(+)), the influx of cation into the cytoplasm leads to membrane depolarization (PubMed:<a

href="http://www.uniprot.org/citations/19202543" target="_blank">19202543, PubMed:21195050). Has a central role in the pain response to endogenous inflammatory mediators, such as bradykinin and to a diverse array of irritants. Activated by a large variety of structurally unrelated electrophilic and non-electrophilic chemical compounds, such as allylthiocyanate (AITC) from mustard oil or wasabi, cinnamaldehyde, diallyl disulfide (DADS) from garlic, and acrolein, an environmental irritant (PubMed:20547126, PubMed:25389312, PubMed:27241698, PubMed:30878828). Electrophilic ligands activate TRPA1 by interacting with critical N-terminal Cys residues in a covalent manner (PubMed:17164327, PubMed:27241698, PubMed:31866091, PubMed:32641835). Non-electrophile agonists bind at distinct sites in the transmembrane domain to promote channel activation (PubMed:33152265). Acts also as an ionotropic cannabinoid receptor by being activated by delta(9)-tetrahydrocannabinol (THC), the psychoactive component of marijuana (PubMed:25389312). May be a component for the mechanosensitive transduction channel of hair cells in inner ear, thereby participating in the perception of sounds (By similarity).

Cellular Location
Cell membrane; Multi-pass membrane protein

Volume
50 µl

TRPA1 Antibody (Internal) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

TRPA1 Antibody (Internal) - Images

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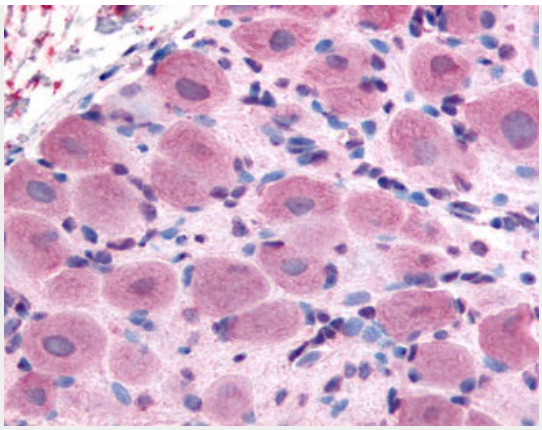

Anti-TRPA1 antibody ALS11065 IHC of human spinal cord, dorsal root ganglion.

TRPA1 Antibody (Internal) - Background

Receptor-activated non-selective cation channel involved in detection of pain and possibly also in cold perception and inner ear function. Has a central role in the pain response to endogenous inflammatory mediators and to a diverse array of volatile irritants, such as mustard oil, garlic and acrolein, an irritant from tears gas and vehicule exhaust fumes. Acts also as a ionotropic cannabinoid receptor by being activated by delta(9)- tetrahydrocannabinol (THC), the psychoactive component of marijuana. Not involved in menthol sensation. May be a component for the mechanosensitive transduction channel of hair cells in inner ear, thereby participating in the perception of sounds. Probably operated by a phosphatidylinositol second messenger system (By similarity).

TRPA1 Antibody (Internal) - References

Jaquemar D.,et al.J. Biol. Chem. 274:7325-7333(1999).
Nusbaum C.,et al.Nature 439:331-335(2006).
Kremeyer B.,et al.Neuron 66:671-680(2010).