

Rabbit TRPA1 Polyclonal Antibody | anti-TRPA1 antibody

TRPA1 Antibody

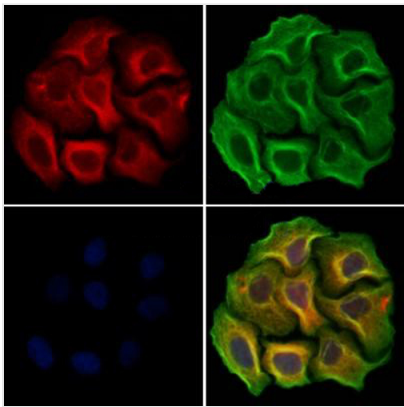
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA328909	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Western Blot

PRODUCT SYNONYMS

TRPA1; Polyclonal Antibody; TRPA1 Antibody; ANKTM 1; ANKTM1; Ankyrin-like with transmembrane domains protein 1; Transformation sensitive protein p120; Transformation-sensitive protein p120; Transient receptor potential cation channel subfamily A member 1; TRPA 1; Trpa1; TRPA1_HUMAN; anti-TRPA1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	TRPA1 Antibody detects endogenous levels of total TRPA1.
Purity/Purification	peptide affinity purification
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	1119
Applicable Applications for anti-TRPA1 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), WB (Western Blot)
Immunogen	A synthesized peptide derived from human TRPA1, corresponding to a region within the internal amino acids.
Fragment	Fab fragment
RRID	AB_2846288
Important	For western blot, incubate membrane with diluted primary Ab in 5% w/v milk , 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.
Preparation and Storage	Store at -20 °C. Stable for 12 months from date of receipt.



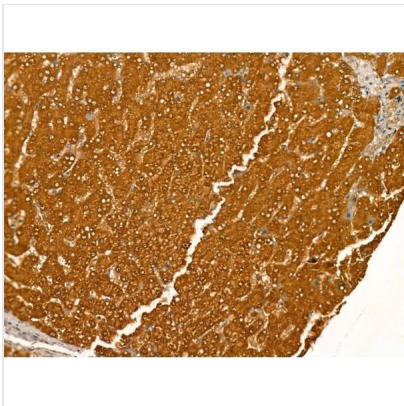
IF (Immunofluorescence)

AAA328909 staining HeLa cells by IF/ICC. The samples were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25Å°C. Samples were then incubated with primary Ab(AAA328909 1:200) and mouse anti-beta tubulin Ab(T0023 1:200) for 1 hour at 37Å°C. An AlexaFluor594 conjugated goat anti-rabbit IgG(H+L) Ab(Red) and an AlexaFluor488 conjugated goat anti-mouse IgG(H+L) Ab(Green) were used as the secondary antibody. The nuclear counter stain is DAPI(blue).



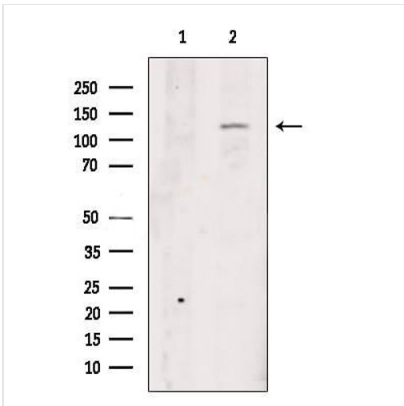
IHC (Immunohistochemisry)

AAA328909 at 1/100 staining Human kidney cancer and adjacent normal tissues by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4Å°C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohiostchemistry)

AAA328909 at 1/100 staining Human liver cancer and adjacent normal tissues by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4Å°C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



WB (Western Blot)

Western blot analysis of extracts from Rat brain, using TRPA1. The lane on the left was treated with blocking peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-TRPA1 antibody	Function: Receptor-activated non-selective cation channel involved in pain detection and possibly also in cold perception, oxygen concentration perception, cough, itch, and inner ear function (PubMed:21873995, PubMed:23199233, PubMed:25389312, PubMed:25855297). Shows 8-fold preference for divalent over monovalent cations (PubMed:31447178). Has a central role in the pain response to endogenous inflammatory mediators and to a diverse array of irritants, such as allylthiocyanate (AITC) from mustard oil or wasabi, cinnamaldehyde, diallyl disulfide (DADS) from garlic, and acrolein, an irritant from tears gas and vehicule exhaust fumes (PubMed:25389312, PubMed:27241698, PubMed:30878828, PubMed:20547126). Acts also as an ionotropic cannabinoid receptor by being activated by delta(9)-tetrahydrocannabinol (THC), the psychoactive component of marijuana (PubMed:25389312). Is activated by a large variety of structurally unrelated electrophilic and non-electrophilic chemical compounds. Electrophilic ligands activate TRPA1 by interacting with critical N-terminal Cys residues in a covalent manner, whereas mechanisms of non-electrophilic ligands are not well determined. 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). Post Translational Modifications: TRPA1 activation by electrophiles occurs though covalent modification of specific cysteine residues in the N-terminal cytoplasmic domain (PubMed:25389312).Hydroxylation is required for TRPA1 activity inhibition in normoxia. In hypoxia, the decrease in oxygene concentration diminishes the activity of the hydroxylase EGLN1, thus relieving TRPA1 from inhibition and ultimately leading to channel activation.Oxidation of Cys-633 and Cys-856 in hyperoxia may override the hydroxylase EGLN1-mediated inhibition, causing TRPA1 activation. Subcellular Location: Cell membrane>Multi-pass membrane protein. Tissue Specificity: Expressed at very low level in human fibroblasts and at a moderate level in liposarcoma cells (PubMed:10066796). Subunit Structure: Homotetramer (PubMed:25389312, PubMed:25855297). Interacts with TMEM100 (By similarity). Interacts with EGLN1 (By similarity). Interacts with the scorpion wasabi receptor toxin at the same site that electrophiles but in a non-covalent manner (PubMed:31447178). Similarity: C-terminal helices from the four subunits associate to form atypical coiled coil structure; this region is probably involved in binding the inositol polyphosphates that are required for optimal channel activity (in vitro).The ANK repeat domain consists of a convex stem structure formed by five ANK repeats and 11 additional ANK repeats that form a crescent-shaped structure that surrounds the protein core.Belongs to the transient receptor (TC 1.A.4) family.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	116534990
NCBI GeneID	8989
NCBI Accession #	NP_015628.2
NCBI GenBank Nucleotide #	NP_015628.2
UniProt Accession #	O75762
Molecular Weight	100kD, 127kD
NCBI Official Full Name	transient receptor potential cation channel subfamily A member 1
NCBI Official Synonym Full Names	transient receptor potential cation channel subfamily A member 1
NCBI Official Symbol	TRPA1
NCBI Official Synonym Symbols	FEPS; FEPS1; ANKTM1
NCBI Protein Information	transient receptor potential cation channel subfamily A member 1
UniProt Protein Name	Transient receptor potential cation channel subfamily A member 1
UniProt Gene Name	TRPA1

UniProt Synonym Gene Names	ANKTM1
UniProt Entry Name	TRPA1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/trpa1-antibody-immunocytochemistry-immunofluorescence-western-blot-elisa/328909>