

Anti-MRGX1 Antibody

Catalog # ABO10590

Product Information

Application	WB, IHC-P
Primary Accession	Q8R4G1
Host	Rabbit
Reactivity	Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Mas-related G-protein coupled receptor member X1(MRGPRX1) detection. Tested with WB, IHC-P in Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	282547
Other Names	Mas-related G-protein coupled receptor member X1, Sensory neuron-specific G-protein coupled receptor 1, Mrgprx1, Mrgc, Mrgprc, Mrgprc11, Snsr, Snsr1
Calculated MW	37074
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 μ g/ml, Rat, By Heat Western blot, 0.1-0.5 μ g/ml, Rat
Subcellular Localization	Cell membrane; Multi-pass membrane protein.
Tissue Specificity	Uniquely localized in a subset of small dorsal root and trigeminal sensory neurons. Associated preferentially with IB4 class of small-diameter somatosensory afferents (also known as nociceptors). .
Source	Eukaryota
Protein Name	Mas-related G-protein coupled receptor member X1
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.05mg Na ₃ .
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of rat MRGX1(14-28aa TLNKTGHPSCRPILT).
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins

Storage	At -20 °C for one year. After r ° Constitution, at 4 °C for one month. It ° Can also be aliquotted and stored frozen at -20 °C for a longer time.Avoid repeated freezing and thawing.
Sequence Similarities	Belongs to the G-protein coupled receptor 1 family. Mas subfamily.

Protein Information

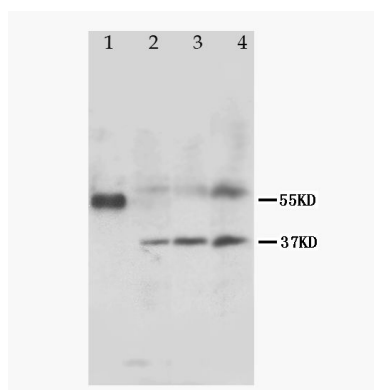
Name	Mrgprx1
Synonyms	Mrgc, Mrgprc, Mrgprc11, Snsr, Snsr1
Function	G protein-coupled receptor specifically expressed in sensory neurons of dorsal root ganglion, and which is involved in itch perception and pain transmission. Specifically activated by a variety of enkephalin (PENK) neuropeptides, such as BAM22 and BAM8-22, which induce itch in a histamine-independent manner. Activated by some tick defensins, such as I.persulcatus Def1 and I.ricinus Def2, evoking itch. Also activated following cleavage by the dust mite cysteine protease Der p1. Ligand binding causes a conformation change that triggers signaling via guanine nucleotide-binding proteins (G proteins) and modulates the activity of downstream effectors, such as adenylate cyclase. MRGPRX1 is both coupled to G(q) and G(i) G proteins: G(q) coupling activates phospholipase C-beta, releasing diacylglycerol (DAG) and inositol 1,4,5-trisphosphate (IP3) second messengers, leading to sensitize TRPV1 in pruriceptors, while G(i) coupling mediates inhibition of adenylate cyclase activity. Activation of MRGPRX1 in the peripheral nervous system elicits itch, evoking scratching (By similarity). MRGPRX1 activation in sensory neurons of the nasal mucosa mediates sneezing responses to irritants or influenza-virus (By similarity). Activation in the central nervous system dampens chronic pain: BAM8-22-binding at the central terminals prevents pain signals passing to spinal cord neurons, attenuating spinal nociceptive transmission (By similarity). Activation by CXCL17 induces chemotactic movement (By similarity).
Cellular Location	Cell membrane {ECO:0000250 UniProtKB:Q96LB2}; Multi-pass membrane protein {ECO:0000250 UniProtKB:Q96LB2}
Tissue Location	Uniquely localized in a subset of small dorsal root and trigeminal sensory neurons. Associated preferentially with IB4 class of small-diameter somatosensory afferents (also known as nociceptors).

Background

MAS-related G-protein coupled receptor, member C, also known as MRGPRC or MRGPRX1, is a human gene. The Mas-related genes(Mrgs) comprise a family of >50 G protein-coupled receptors(GPCRs), many of which are expressed in specific subsets of nociceptive sensory neurons in mice. In contrast, humans contain a related but nonorthologous family of genes, called MrgXs or sensory neuron-specific receptors, of which many fewer appear to be expressed in sensory neurons.

Images

Anti-MRGX1 antibody, ABO10590, Western blotting
Lane 1: Marker
Lane 2: Rat Heart Tissue Lysate
Lane 3: Rat Skeletal Muscle Tissue Lysate
Lane 4: MCF-7 Cell Lysate



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.