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MRGPRX2 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP16522b

Product Information

Application	WB, E
Primary Accession	Q96LB1
Other Accession	NP_473371.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB36019
Calculated MW	37099
Antigen Region	287-315

Additional Information

Gene ID	117194
Other Names	Mas-related G-protein coupled receptor member X2, MRGPRX2, MRGX2
Target/Specificity	This MRGPRX2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 287-315 amino acids from the C-terminal region of human MRGPRX2.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	MRGPRX2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MRGPRX2
Synonyms	MRGX2
Function	Mast cell-specific receptor for basic secretagogues, i.e. cationic amphiphilic drugs, as well as endo- or exogenous peptides, consisting of a basic head

	group and a hydrophobic core (PubMed:25517090). Recognizes and binds small molecules containing a cyclized tetrahydroisoquinoline (THIQ), such as non-steroidal neuromuscular blocking drugs (NMBDs), including tubocurarine and atracurium. In response to these compounds, mediates pseudo-allergic reactions characterized by histamine release, inflammation and airway contraction (By similarity). Acts as a receptor for a number of other ligands, including peptides and alkaloids, such as cortistatin-14, proadrenomedullin N-terminal peptides PAMP-12 and, at lower extent, PAMP-20, antibacterial protein LL-37, PMX-53 peptide, beta-defensins, and complanadine A.
Cellular Location	Cell membrane; Multi-pass membrane protein
Tissue Location	Mainly expressed in mast cells. Has a limited expression profile, both peripheral and within the central nervous system, with highest levels in dorsal root ganglion (PubMed:12915402) Detected in blood vessels, scattered lymphocytes, and gastrointestinal ganglia (at protein level) (PubMed:16161007)

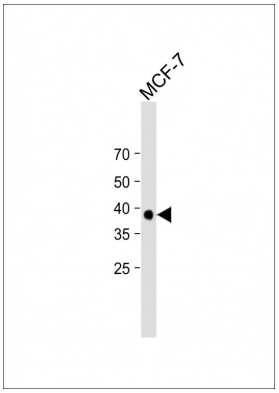
Background

MRGPRX2 is the orphan receptor. Probably involved in the function of nociceptive neurons. May regulate nociceptor function and/or development, including the sensation or modulation of pain. Cortistatin-14 seems to be a high potency ligand at this receptor. Cortistatin has several biological functions including roles in sleep regulation locomotor activity, and cortical function. In receptor-expressing cells, cortistatin-stimulated increases in intracellular Ca(2+) but had no effect on basal or forskolin-stimulated cAMP levels, suggesting that this receptor is G(q)-coupled.

References

Gembardt, F., et al. Mol. Cell. Biochem. 319 (1-2), 115-123 (2008) :
Yang, S., et al. Gene 352, 30-35 (2005) :
Robas, N., et al. J. Biol. Chem. 278(45):44400-44404(2003)
Takeda, S., et al. FEBS Lett. 520 (1-3), 97-101 (2002) :
Dong, X., et al. Cell 106(5):619-632(2001)

Images



All lanes: Anti-MRGPRX2 Antibody (C-term) at 1:2000 dilution + MCF-7 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary: Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size: 38 KDa Blocking/Dilution buffer: 5% NFDM/TBST.