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Anti-MRGX4 Antibody

Catalog # AP61051

Product Information

Application	WB, IF/IC
Primary Accession	Q96LA9
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	36461

Additional Information

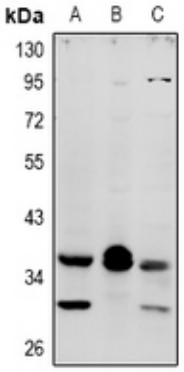
Gene ID	117196
Other Names	MRGX4; SNSR5; SNSR6; Mas-related G-protein coupled receptor member X4; Sensory neuron-specific G-protein coupled receptor 5/6
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human MRGX4. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000), IF/IC (1/100 - 1/500) IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	MRGPRX4
Function	G protein-coupled receptor for bile acids, which is specifically expressed in sensory neurons of dorsal root ganglion and is involved in itch perception (PubMed:31068464, PubMed:31500698, PubMed:34789874, PubMed:38718132, PubMed:39476841). Activated by bile acids, such as deoxycholate, chenodeoxycholate, taurocholate, taurodeoxycholate and taurodeoxycholate (PubMed:31068464, PubMed:31500698, PubMed:39476841). Has a preference for 3-sulfated bile acids, such as deoxycholate 3-sulfate, glycoursodeoxycholate 3-sulfate and tauroursodeoxycholate 3-sulfate, which are present at high level in cholestatic patients with itch symptoms (PubMed:39476841). Bile acid- binding causes a conformation change that triggers signaling via guanine nucleotide-binding proteins (G proteins) and modulates the activity of downstream effectors (PubMed:30768591, PubMed:31068464, PubMed:31500698, PubMed:34789874, PubMed:38718132, PubMed:39476841). MRGPRX4 is coupled to G(q)/G(11) G alpha proteins and activates phospholipase C-beta,

	releasing diacylglycerol (DAG) and inositol 1,4,5-trisphosphate (IP3) second messengers that modulate the activity of phosphatidylinositol 3-kinase and promote the release of Ca2+ ions from intracellular stores, respectively (PubMed:30768591, PubMed:31068464, PubMed:31500698, PubMed:34789874, PubMed:38718132, PubMed:39476841).
Cellular Location	Cell membrane; Multi-pass membrane protein
Tissue Location	Uniquely localized in a subset of small dorsal root and trigeminal sensory neurons.

Images



Western blot analysis of MRGX4 expression in U87MG (A), C6 (B), MCF7 (C) whole cell lysates. (Predicted band size: 36 kD; Observed band size: 36 kD)



Immunofluorescent analysis of MRGX4 staining in A549 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with Alexa Fluor 647-conjugated secondary antibody (red) in PBS at room temperature in the dark.

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