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Anti-MRGD / MRGPRD Antibody (Cytoplasmic Domain)

Rabbit Anti Human Polyclonal Antibody
Catalog # ALS17517

Specification

Anti-MRGD / MRGPRD Antibody (Cytoplasmic Domain) - Product Information

Application	**IHC-P**
Primary Accession	Q8TDS7
Predicted	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**36118**
Dilution	**IHC-P~~N/A**

Anti-MRGD / MRGPRD Antibody (Cytoplasmic Domain) - Additional Information

Gene ID 116512

Alias Symbol	**MRGPRD**

Other Names
MRGPRD, Beta-alanine receptor, MRGD, MAS-related GPR, member D, TGR7

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

Reconstitution & Storage
Immunoaffinity purified

Precautions
Anti-MRGD / MRGPRD Antibody (Cytoplasmic Domain) is for research use only and not for use in diagnostic or therapeutic procedures.

Anti-MRGD / MRGPRD Antibody (Cytoplasmic Domain) - Protein Information

Name MRGPRD {ECO:0000303|PubMed:39580805, ECO:0000312|HGNC:HGNC:29626}

Function
G protein-coupled receptor that acts as a mediator of peripheral pain and itch sensations (PubMed:15037633, PubMed:23091359, PubMed:35840655, PubMed:39580805). Activated by various ligands, such as beta-alanine, beta-aminoisobutyrate, angiotensin 1-7, alamandine and allantoin, causing a conformation change that triggers signaling via guanine nucleotide-binding proteins (G proteins) and modulates the activity of downstream effectors (PubMed:15037633, PubMed:23091359,

PubMed:35840655, PubMed:39580805). MRGPRD 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, while G(i) coupling mediates inhibition of adenylate cyclase activity (PubMed:15037633, PubMed:23091359, PubMed:35840655, PubMed:39580805). MRGPRD is specifically expressed in neurons that innervate the epidermis and acts as a key mediator of skin stimuli, such as itch, pain and mechanical stimuli (By similarity). Required to maintain skin homeostasis in response to irritant dermatitis by initiating a signaling that promotes glutamate release, inhibiting mast cell hyperresponsiveness and skin inflammation (By similarity). Required to prevent cardiomyocyte hypertrophy following activation by alamandine, a decarboxylation product of angiotensin 1-7 (By similarity). Acts as a receptor for allantoin in dorsal root ganglion neurons, eliciting chronic itch (pruritus) (By similarity).

Cellular Location
Cell membrane; Multi-pass membrane protein. Note=Localized at the plasma membrane but internalized into the cytoplasm after treatment with beta-alanine

Anti-MRGD / MRGPRD Antibody (Cytoplasmic Domain) - 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

Anti-MRGD / MRGPRD Antibody (Cytoplasmic Domain) - Images