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# GPCR TGR7 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP55968

## Product Information

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| **Application** | WB, IHC-P, IHC-F, IF, ICC, E |
| **Primary Accession** | Q8TDS7 |
| **Reactivity** | Human |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 36118 |
| **Physical State** | Liquid |
| **Immunogen** | KLH conjugated synthetic peptide derived from human GPCR TGR7 |
| **Epitope Specificity** | 101-200/321 |
| **Isotype** | IgG |
| **Purity** | affinity purified by Protein A |
| **Buffer** | 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. |
| **SUBCELLULAR LOCATION** | Cell membrane; Multi-pass membrane protein. Note=Localized at the plasma membrane but internalized into the cytoplasm after treatment with beta-alanine. |
| **SIMILARITY** | Belongs to the G-protein coupled receptor 1 family. Mas subfamily. |
| **Important Note** | This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. |
| **Background Descriptions** | Mas-related G protein-coupled receptors are sensory neuron-specific G protein-coupled receptors that are usually involved in the development and function of nociceptive neurons and may also regulate the sensation or modulation of pain. MRGD (MAS-related GPR, member D), also known as MRGPRD or TGR7, is a 321 amino acid multi-pass membrane protein that belongs to the G-protein coupled receptor 1 family and the Mas subfamily. MRGD is suggested to function specifically as a receptor for beta-alanine, a naturally occurring beta amino acid. Beta-alanine induces Ca2+ influx and decreases forskolin-stimulated cAMP production in cells expressing MRGD. Neurons of outer epidermis that express MRGD act as nociceptors in which they respond indirectly to external stimuli by detecting ATP release in the skin. MRGD is encoded by a gene located on human chromosome 11q13.2. |

## Additional Information

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| **Gene ID** | 116512 |
| **Other Names** | Mas-related G-protein coupled receptor member D, Beta-alanine receptor, G-protein coupled receptor TGR7, MRGPRD, MRGD |
| **Dilution** | WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000 |

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| **Format** | 0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce |
| **Storage** | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C. |

## Protein Information

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| **Name** | MRGPRD |
| **Synonyms** | MRGD |
| **Function** | May regulate nociceptor function and/or development, including the sensation or modulation of pain. Functions as a specific membrane receptor for beta-alanine. Beta-alanine at micromolar doses specifically evoked Ca(2+) influx in cells expressing the receptor. Beta-alanine decreases forskolin-stimulated cAMP production in cells expressing the receptor, suggesting that the receptor couples with G- protein G(q) and G(i). |
| **Cellular Location** | Cell membrane; Multi-pass membrane protein Note=Localized at the plasma membrane but internalized into the cytoplasm after treatment with beta-alanine |