SunLong Biotech Co.,LTD
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[Primary Antibody]

Rabbit Anti-GPCR TGR7 antibody

Catalog Number: SL15374R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	GPCR TGR7
Immunogen:	KLH conjugated synthetic peptide derived from human GPCR TGR7: 101-200/321 <Extracellular>
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	WB=1:500-2000 IHC-P=1:100-500 IHC-F=1:100-500 ICC/IF=1:100-500 IF=1:100-500 ELISA=1:5000-10000 （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	(predicted: Human)
Predicted MW.:	36kDa
Subcellular Location:	The cell membrane
Background:	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.

Important Note: This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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	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. **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). **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. **Database links:** **Entrez Gene:** 116512 Human **Entrez Gene:** 211578 Mouse **Entrez Gene:** 293648 Rat **SwissProt:** Q8TDS7 Human **SwissProt:** Q91ZB8 Mouse **SwissProt:** Q7TN41 Rat **Unigene:** 527802 Human **Unigene:** 370299 Mouse **Unigene:** 162482 Rat

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