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# Anti-GPR66 Antibody

Catalog # AP60914

## Product Information

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| **Application** | WB, IF/IC |
| **Primary Accession** | Q9HB89 |
| **Reactivity** | Human, Mouse, Rat |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 47351 |

## Additional Information

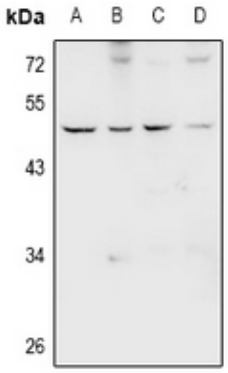
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| **Gene ID** | 10316 |
| **Other Names** | GPR66; Neuromedin-U receptor 1; NMU-R1; G-protein coupled receptor 66; G-protein coupled receptor FM-3 |
| **Target/Specificity** | KLH-conjugated synthetic peptide encompassing a sequence within the N-term region of human GPR66. 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

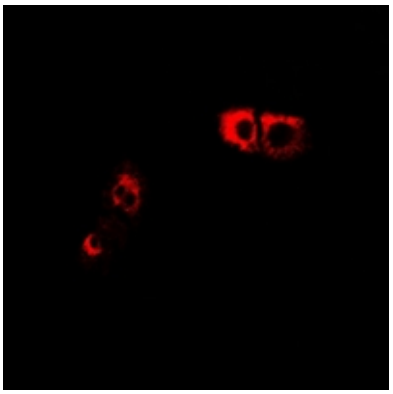
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|---|---|
| **Name** | NMUR1 ( HGNC:4518) |
| **Function** | G protein-coupled receptor for the neuropeptides neuromedin-U (NMU) and neuromedin-S (NMS) (PubMed:10899166, PubMed:15635449, PubMed:35440625). Functionally, is involved in pleiotropic roles, including regulation of feeding, energy balance, blood pressure and smooth muscle contraction (By similarity). Additionally modulates hormone release and inflammatory responses in a tissue- and receptor- dependent manner (By similarity). Mechanistically, upon ligand binding, couples to Galpha proteins, namely GNAQ/Gaq or GNA11/Ga11 and GNAI1/Gai subunits (PubMed:15331768). GNAQ/Gaq or GNA11/Ga11 coupling activatse a phospholipase C (PLC), hydrolyzing PIP2 (phosphatidylinositol 4,5-bisphosphate) into DAG (diacylglycerol) and IP3 (inositol trisphosphate) and mobilizing intracellular calcium via IP3 receptors on the endoplasmic reticulum (PubMed:10899166, PubMed:15331768). Also couples to GNAI1/Gai to inhibit forskolin-stimulated cAMP accumulation (PubMed:15331768). In pancreatic beta cells, through neuromedin U-25, regulates insulin secretion |

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| | where it coupled to GNAI2 and GNAO1, resulting in reduced intracellular Ca2+ influx and cAMP levels (By similarity). Through neuromedin U-25 in Th2-type T cells, enhances type 2 cytokine secretion and modulates inflammatory responses via activation of PLC-calcineurin-MEK and PI3K signaling pathways (By similarity). |
| **Cellular Location** | Cell membrane; Multi-pass membrane protein |
| **Tissue Location** | Expressed in greatest abundance in peripheral organs, particularly in elements of the gastrointestinal and urogenital systems with highest levels in testes. In central nervous system structures express levels are much lower than those seen in peripheral organs. Within the CNS, has been detected in highest abundance in the cerebellum, dorsal root ganglia, hippocampus, and spinal cord |

## Images




Western blot analysis of GPR66 expression in rat testis (A), mouse testis (B), SGC7901 (C), K562 (D) whole cell lysates. (Predicted band size: 47 kD; Observed band size: 47 kD)



Immunofluorescent analysis of GPR66 staining in LOVO 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'.