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NMUR2 Rabbit pAb

Catalog # AP97774

Product Information

Application	IHC-P, IHC-F, IF, E
Primary Accession	Q9GZQ4
Other Accession	Q9GZQ4
Predicted	Pig, Human, Rabbit, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	47696
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human NMUR2
Epitope Specificity	181-230/415
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the G-protein coupled receptor 1 family.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Neuromedin U is a neuropeptide with high activity on smooth muscle. It is widely expressed in gastrointestinal systems and central nervous system (CNS). Peripheral activities of neuromedin U include smooth muscle stimulation, ion transport alterations in the gut and the regulation of local blood flow and adrenocortical function. Neuromedin U receptors 1 and 2 (NMUR1 and NMUR2) are multi-pass membrane proteins that belong to the G-protein coupled receptor 1 family of proteins. Both NMUR1 and NMUR2 act as receptors for the neuromedin U neuropeptide. NMUR1 is detected in peripheral organs, particularly in urogenital and gastrointestinal systems, with highest levels in testis. It's expression in CNS is low, but the protein has been detected in cerebellum, hippocampus, dorsal root ganglia and spinal cord. NMUR2 is predominantly detected in central nervous system with highest levels detected in medulla oblongata, spinal cord and thalamus. It may also be detected in testis but has low levels of expression in peripheral tissues.

Additional Information

Gene ID	56923
Other Names	FM-4; FM4; NMU-R2; NMU2R; TGR-1; TGR1; NMUR2_HUMAN; NMUR2; G-protein coupled receptor FM-4; G-protein coupled receptor TGR-1; neuromedin U receptor 2
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
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

Name	NMUR2 (HGNC:16454)
Function	G protein-coupled receptor for the neuropeptides neuromedin-U (NMU) and neuromedin-S (NMS) (PubMed:10887190, PubMed:10894543, PubMed:35440625, PubMed:36575163). Functionally, is involved in regulation of feeding and energy balance (By similarity). Additionally may modulates blood pressure and smooth muscle contraction (By similarity). Mechanistically, upon ligand binding, couples to Galpha proteins, namely GNAQ/Gaq or GNA11/Ga11 and GNAI1/Gai subunits (PubMed:11010960, PubMed:15331768, PubMed:35440625, PubMed:36575163). GNAQ/Gaq or GNA11/Ga11 coupling leads to the activation of a phospholipase C (PLC), which hydrolyzes PIP2 (phosphatidylinositol 4,5- bisphosphate) into DAG (diacylglycerol) and IP3 (inositol trisphosphate), and subsequent intracellular calcium mobilization via IP3 receptors on the endoplasmic reticulum (PubMed:11010960, PubMed:15331768). GNAI1/Gai coupling inhibits forskolin-stimulated cAMP accumulation (PubMed:15331768).
Cellular Location	Cell membrane; Multi-pass membrane protein
Tissue Location	Predominantly expressed in the CNS, particularly in the medulla oblongata, pontine reticular formation, spinal cord, and thalamus. High level in testis whereas lower levels are present in a variety of peripheral tissues including the gastrointestinal tract, genitourinary tract, liver, pancreas, adrenal gland, thyroid gland, lung, trachea, spleen and thymus.

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