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GRPR Antibody (Center)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9790c

Specification

GRPR Antibody (Center) - Product Information

Application	**WB, IHC-P, FC,E**
Primary Accession	P30550
Other Accession	P52500, P21729
Reactivity	**Human**
Predicted	**Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**123-152**

GRPR Antibody (Center) - Additional Information

Gene ID 2925

Other Names
Gastrin-releasing peptide receptor, GRP-R, GRP-preferring bombesin receptor, GRPR

Target/Specificity
This GRPR antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 123-152 amino acids from the Central region of human GRPR.

Dilution
WB~~1:1000
IHC-P~~1:50~100
FC~~1:10~50
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
GRPR Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

GRPR Antibody (Center) - Protein Information

Name GRPR

Function Receptor for gastrin-releasing peptide (GRP) (PubMed:1655761). Signals via association with G proteins that activate a phosphatidylinositol-calcium second messenger system, resulting in Akt phosphorylation. Contributes to the regulation of food intake. Contributes to the perception of prurient stimuli and transmission of itch signals in the spinal cord that promote scratching behavior, but does not play a role in the perception of pain. Contributes primarily to nonhistaminergic itch sensation. In one study, shown to act in the amygdala as part of an inhibitory network which inhibits memory specifically related to learned fear (By similarity). In another study, shown to contribute to disinhibition of glutamatergic cells in the auditory cortex via signaling on vasoactive intestinal peptide- expressing cells which leads to enhanced auditory fear memories (By similarity). Contributes to the induction of sighing through signaling in the pre-Botzinger complex, a cluster of several thousand neurons in the ventrolateral medulla responsible for inspiration during respiratory activity (By similarity).

Cellular Location
Cell membrane; Multi-pass membrane protein

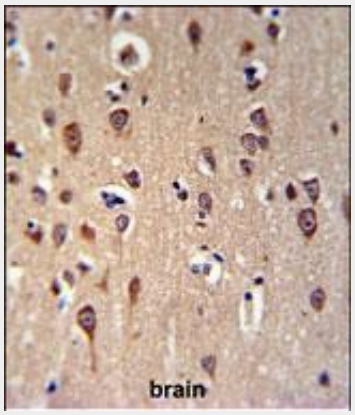
Tissue Location
Highly expressed in pancreas (PubMed:11245983). Also expressed in stomach, adrenal cortex and brain (PubMed:11245983) In brain, expressed in cells throughout the cortex (PubMed:34610277)

GRPR Antibody (Center) - 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

GRPR Antibody (Center) - Images



GRPR Antibody (Center) (Cat. #AP9790c) IHC analysis in formalin fixed and paraffin embedded brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the GRPR Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

GRPR Antibody (Center) - Background

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Gastrin-releasing peptide (GRP) regulates numerous functions of the gastrointestinal and central nervous systems, including release of gastrointestinal hormones, smooth muscle cell contraction, and epithelial cell proliferation and is a potent mitogen for neoplastic tissues. The effects of GRP are mediated through the gastrin-releasing peptide receptor. This receptor is a glycosylated, 7-transmembrane G-protein coupled receptor that activates the phospholipase C signaling pathway. The receptor is aberrantly expressed in numerous cancers such as those of the lung, colon, and prostate. An individual with autism and multiple exostoses was found to have a balanced translocation between chromosome 8 and a chromosome X breakpoint located within the gastrin-releasing peptide receptor gene.

GRPR Antibody (Center) - References

Guey, L.T., et al. Eur. Urol. 57(2):283-292(2010)
Chapuis, J., et al. Mol. Psychiatry 14(11):1004-1016(2009)
Chao, C., et al. J. Surg. Res. 156(1):26-31(2009)
Ananias, H.J., et al. Prostate 69(10):1101-1108(2009)
Fleischmann, A., et al. Endocr. Relat. Cancer 16(2):623-633(2009)