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GRP Antibody (Center)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21751c

Product Information

Application	WB, E
Primary Accession	P07492
Reactivity	Human
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB53369
Calculated MW	16213

Additional Information

Gene ID	2922
Other Names	Gastrin-releasing peptide, GRP, Neuromedin-C, GRP-10, GRP
Target/Specificity	This GRP antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 67-97 amino acids from the Central region of human GRP.
Dilution	WB~~1:2000 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	GRP Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GRP
Function	Stimulates the release of gastrin and other gastrointestinal hormones (By similarity). Contributes to the perception of prurient stimuli and to the transmission of itch signals in the spinal cord that promote scratching behavior (By similarity). Contributes primarily to nonhistaminergic itch sensation (By similarity). 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 act on vasoactive intestinal peptide (VIP)-expressing cells in the auditory cortex, most likely via extrasynaptic diffusion from local and long-range sources, to mediate disinhibition of glutamatergic cells via VIP cell-specific GRPR signaling which leads to enhanced auditory fear memories (By similarity). Contributes to the regulation of food intake (By similarity). Inhibits voltage-gated sodium channels but enhances voltage-gated potassium channels in hippocampal neurons (By similarity). Induces sighing by acting directly on the pre-Botzinger complex, a cluster of several thousand neurons in the ventrolateral medulla responsible for inspiration during respiratory activity (By similarity).

Cellular Location

Secreted. Cytoplasmic vesicle, secretory vesicle lumen {ECO:0000250|UniProtKB:Q863C3}. Cell projection, neuron projection {ECO:0000250|UniProtKB:Q8R1I2}. Note=In neurons of the retrotrapezoid nucleus/parafacial respiratory group, expressed on neuron projections which project into the pre-Botzinger complex {ECO:0000250|UniProtKB:Q8R1I2}

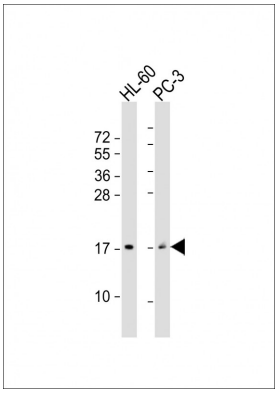
Background

GRP stimulates gastrin release as well as other gastrointestinal hormones. Operates as a negative feedback regulating fear and established a causal relationship between GRP- receptor gene expression, long-term potentiation, and amygdala- dependent memory for fear (By similarity).

References

Spindel E.R.,et al.Proc. Natl. Acad. Sci. U.S.A. 83:19-23(1986).
Lebacq-Verheyden A.-M.,et al.Mol. Cell. Biol. 8:3129-3135(1988).
Sausville E.A.,et al.J. Biol. Chem. 261:2451-2457(1986).
Kalnine N.,et al.Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases.
Nusbaum C.,et al.Nature 437:551-555(2005).

Images



All lanes : Anti-GRP Antibody (Center) at 1:2000 dilution Lane 1: HL-60 whole cell lysate Lane 2: PC-3 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 16 kDa Blocking/Dilution buffer: 5% NFDM/TBST.