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BP5046 Polyclonal Antibody to Gastrin - Serum

Alternate names: GAS, GAST

Quantity: 50 µl

Background: Gastrin is mainly known by its first described role as a gastric acid-hormone but the protein also has the ability to promote cellular growth. More recently, gastrin has been suggested to induce leukocyte-endothelial cell interactions and to have a pro-inflammatory effect. Gastrin has two biologically active peptide forms, G34 and G17 and they activate two different receptors: the CCK-1 receptor, which has low affinity for gastrin but high affinity for the related hormone cholecystokinin (CCK), and the CCK-2 receptor, which has high affinity for both gastrin and CCK and mediates the acid-secretory as well as the proliferative effects of gastrin.

Uniprot ID: P01350

NCBI: NP_000796.1

GeneID: 2520

Host: Guinea Pig

Immunogen: Synthetic Human Gastrin I conjugated to BSA

Format:
State: Lyophilized Serum
Preservatives: 0.09% Sodium Azide
Reconstitution: Dissolve the antiserum in 50-100 µl distilled water, and dilute further in 0.1M PBS with 1% BSA and 0.09% Sodium Azide.

Applications:
Immunohistochemistry on Frozen Sections.
Immunohistochemistry on Paraffin Embedded Tissues (No proteolytic treatment required).
Immunofluorescence Microscopy.
Recommended Positive Control: Formalin-fixed paraffin sections of Rat antrum.
Working Dilutions: 1/800-1/1500 using FITC, with overnight incubation at 2-8°C.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: Gastrin-secreting cells are numerous in the antrum and a few are found in the proximal duodenum. The antibody can be used for the diagnosis of Gastrin-producing tumors which are mainly found in the pancreas and occasionally in the stomach and the duodenum.
Absorption with 10-100 µg Gastrin 1-34 and CCK 8 per ml antiserum abolishes the staining.

Species Reactivity: **Tested:** Human and Rat.

Storage: Prior to reconstitution store at 2-8°C.
Following reconstitution store undiluted at 2-8°C for one month
or (in aliquots) at -20°C for longer.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

Product Citations:

Purchased from Acris:

1. Fischer T, Doll C, Jacobs S, Kolodziej A, Stumm R, Schulz S. Reassessment of sst2 somatostatin receptor expression in human normal and neoplastic tissues using the novel rabbit monoclonal antibody UMB-1. J Clin Endocrinol Metab. 2008 Nov;93(11):4519-24. doi: 10.1210/jc.2008-1063. Epub 2008 Aug 12. PubMed PMID: 18697876.
2. Haid D, Widmayer P, Breer H. Nutrient sensing receptors in gastric endocrine cells. J Mol Histol. 2011 Aug;42(4):355-64. doi: 10.1007/s10735-011-9339-1. Epub 2011 Jul 13. PubMed PMID: 21750971.
3. Haid DC, Jordan-Biegger C, Widmayer P, Breer H. Receptors responsive to protein breakdown products in g-cells and d-cells of mouse, swine and human. Front Physiol. 2012 Apr 10;3:65. doi: 10.3389/fphys.2012.00065. eCollection 2012. PubMed PMID: 22514536.
4. Widmayer P, Goldschmid H, Henkel H, Küper M, Königsrainer A, Breer H. High fat feeding affects the number of GPR120 cells and enteroendocrine cells in the mouse stomach. Front Physiol. 2015 Feb 27;6:53. doi: 10.3389/fphys.2015.00053. eCollection 2015. PubMed PMID: 25774135.
5. Lang, K;Breer, H;Frick, C. Mechanosensitive ion channel Piezo1 is expressed in antral G cells of murine stomach. Cell Tissue Res. 2017. PubMed PMID: 29264643.

General Readings:

1. Portela-Gomes GM, Stridsberg M, Johansson H, Grimelius L. Complex co-localization of chromogranins and neurohormones in the human gastrointestinal tract. J Histochem Cytochem. 1997 Jun;45(6):815-22. PubMed PMID: 9199667.
2. Mulder H, Lindh AC, Ekblad E, Westermark P, Sundler F. Islet amyloid polypeptide is expressed in endocrine cells of the gastric mucosa in the rat and mouse. Gastroenterology. 1994 Sep;107(3):712-9. PubMed PMID: 8076756.