

Gastrin

Gastrin is a peptide hormone that plays an important role in regulating gastrointestinal function. It is produced by **G-cells** in the antral part of the gastric mucosa and TG-cells scattered in the mucosa of the stomach and small intestine. ^[1] To a lesser extent, it is also formed and secreted in the central nervous system (pituitary, hypothalamus and elongated spinal cord) and in some peripheral nerves. ^[2]

The gastrin precursor preprogastrin is cleaved into fragments of various sizes, the most common being gastrin with 34, 17 and 14 amino acid residues. The individual forms differ in their effectiveness and representation in the tissues.

Gastrin **stimulates the secretion** of gastric and pancreatic juice, insulin and glucagon, motility of the stomach and intestine, increases the tone of the lower esophageal sphincter^[3] and has a trophic effect on the mucous membrane of the digestive tract. G-cell secretion of gastrin is stimulated by an increase in gastric pH, the presence of amino acids and peptides in the stomach, and a parasympathetic agent. In contrast, a decrease in gastric pH and the hormone somatostatin reduce gastrin secretion.

G-cells of the antal part of the stomach, TG-cells of the mucous membrane of the stomach and small intestine

polypeptide of 34, 17 or 14 amino acids

parietal cells of the stomach

G protein-coupled cholecystokinin B receptor

see the article

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References

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2. GANONG, William F. *Přehled lékařské fyziologie*. 20. edition. Praha : Galén, 2005. 890 pp. pp. 490. ISBN 80-7262-311-7.
3. GILES, – MASON, M C – HUMPHRIES, C. , et al. Action of gastrin on the lower oesophageal sphincter in man. *Gut* [online]. 1969, vol. 10, no. 9, p. 730-4, Available from <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1552975/?tool=pubmed>>. ISSN 0017-5749.

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