

## Immunohistochemical Expression of Ghrelin Receptor GHS-R1 in the Gastrointestinal Tract

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Ghrelin is a gastrointestinal hormone which performs the function of a ligand for secretory receptors of growth hormone in the adenohypophysis. In recent years, studies reveal the presence of ghrelin receptors outside the CNS. The aim of the study is an immunohistochemical proof of the presence and localization of ghrelin receptor GHS-R1 in the human gastrointestinal tract. Biopsy specimens from stomach – body and antrum pylorus and duodenum are subjected for the expression of ghrelin receptor GHS-R1. Immunohistochemical study of GHS-R1 found its expression in biopsy material from three locations. The presence of receptors for ghrelin in the gastrointestinal tract indicates its paracrine action. There are ghrelin receptors in the epithelial cells of gastric glands and Lieberkuhn crypts of the duodenum that can directly affect their secretion. By binding to receptors in smooth muscle cells ghrelin also influences motility of the gastrointestinal tract.

*Key words:* ghrelin, ghrelin receptor, GHS-R1, gastrointestinal tract.