

## GASTRO INTESTINAL HORMONES - GI HORMONES

Biologically active polypeptides secreted by the cells of Gastrointestinal tract and also nerve cells present in brain.

Also called as **Gut Polypeptides**.

**Paracrine cells or histocrine cells** Endocrine cells secrete GI hormones

**APUD cells** Amine Precursor Uptake and Decarboxylation - Paracrine cells.

Hormone	Full name	Site of production	Additional regions that possess cells	Target part	Action
Gastrin	Gastrin	G- cells of intestinal wall and upper gastric wall	TG cells stomach Pituitary medulla, hypothalamus	Gastric gland. Oesophageal Sphincter	Stimulate gastric juice secretion, insulin secretion
CCK -PZ	Cholecystokinin- Pancreozymin	I cells of duodenum	Ileum ,colon , brain	Pancreas, Small intestine	Stimulate pancreatic juice and enterokinase secretion. Contraction of gall bladder.
Secretin	Secretin	S- cells of small intestine	Brain	Pancreas and bile duct	Bicarbonate secretion, contraction of pyloric sphincter . Secreted when stomach becomes acidic.
GIP	Gastric inhibitory peptide	K- cells of duodenum and jejunum	Brain	Pancreas Gastric gland	Stimulate insulin secretion, Inhibit gastric secretion. Also called <b>Glucose dependent-insulinotropic hormone</b> - Stimulated by fat and glucose in the duodenum
VIP	Vaso active Intestinal Polypeptide	Gut	Brain	Pancreas , Stomach	Stimulate bicarbonate secretion by pancreas , Inhibits gastric secretion and motility
Motilin	Motilin	EC cells of duodenum	-	Intestine	Causes intestinal motility. Prepares intestine for next meal
Neurotensin	Neurotensin	Ileum	Motor neurons of enteric nervous system.	Intestine	Causes increased blood flow in intestine . Inhibits intestinal motility

Substance P	Substance P	Intestine	-	Intestine	Not found in blood. Increases motility.
GRP	Gastrin Releasing Peptide	Vagal nerve endings.	-	Stomach	Stimulate gastrin secretion
Somatostatin	Somatostatin	D cells of pancreas		Body cells	GH inhibiting hormone. Stimulated by acid in the stomach
Glucagon	Enteroglucagon	A cells of stomach and duodenum	A cells of pancreatic islets	-	Hyperglycaemia in diabetes mellitus
GLI	GLI-glicentin	-	-	-	Similar to glucagon
Guanylin	Guanylin	Paneth cells of small intestinal epithelium – crypts of lieberkuhn.	-	-	Recently identified hormone
Dynorphin	Opioid peptide	Duodenum	Post.pituitary	-	-
Serotonin	Serotonin	Enterochromaffin cells and nerve endings.	GI tract	GI tract	Both GI hormone and neurotransmitter
Bombesin	Bombesin	Tetra deca peptide from mammalian stomach .	Frog's skin	-	Stimulate pancreatic secretion