

ARG82772 Human Ghrelin ELISA Kit

Package: 96 wells
Store at: 4°C

Summary

Product Description	ARG82772 Human Ghrelin ELISA Kit is an Enzyme Immunoassay kit for the quantification of Human Ghrelin in serum, plasma and cell culture supernatants.
Tested Reactivity	Hu
Tested Application	ELISA
Specificity	Cross-Reactivity: Monkey: 90% Pig: 80% Dog and Rat: 50% Mouse, Rabbit and Bovine: None
Target Name	Ghrelin
Conjugation	HRP
Conjugation Note	Substrate: TMB and read at 450 nm.
Sensitivity	0.067 ng/ml
Sample Type	Serum, plasma and cell culture supernatants.
Standard Range	0.125 - 32 ng/ml
Sample Volume	50 µl
Precision	Intra-Assay CV: 5.3% Inter-Assay CV: 10.2%
Alternate Names	Motilin-related peptide; Appetite-regulating hormone; Growth hormone secretagogue; Growth hormone-releasing peptide; MTLRP; Ghrelin; Protein M46

Application Instructions

Assay Time	~ 4 hours
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Properties

Form	96 well
Storage instruction	Store the kit at 2-8°C. Keep microplate wells sealed in a dry bag with desiccants. Do not expose test reagents to heat, sun or strong light during storage and usage. Please refer to the product user manual for detail temperatures of the components.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	GHRL
Gene Full Name	ghrelin/obestatin prepropeptide

Background

This gene encodes the ghrelin-obestatin preproprotein that is cleaved to yield two peptides, ghrelin and obestatin. Ghrelin is a powerful appetite stimulant and plays an important role in energy homeostasis. Its secretion is initiated when the stomach is empty, whereupon it binds to the growth hormone secretagogue receptor in the hypothalamus which results in the secretion of growth hormone (somatotropin). Ghrelin is thought to regulate multiple activities, including hunger, reward perception via the mesolimbic pathway, gastric acid secretion, gastrointestinal motility, and pancreatic glucose-stimulated insulin secretion. It was initially proposed that obestatin plays an opposing role to ghrelin by promoting satiety and thus decreasing food intake, but this action is still debated. Recent reports suggest multiple metabolic roles for obestatin, including regulating adipocyte function and glucose metabolism. Alternative splicing results in multiple transcript variants. In addition, antisense transcripts for this gene have been identified and may potentially regulate ghrelin-obestatin preproprotein expression. [provided by RefSeq, Nov 2014]

Function

Ghrelin is the ligand for growth hormone secretagogue receptor type 1 (GHSR). Induces the release of growth hormone from the pituitary. Has an appetite-stimulating effect, induces adiposity and stimulates gastric acid secretion. Involved in growth regulation.

Obestatin may be the ligand for GPR39. May have an appetite-reducing effect resulting in decreased food intake. May reduce gastric emptying activity and jejunal motility (By similarity). [UniProt]

PTM

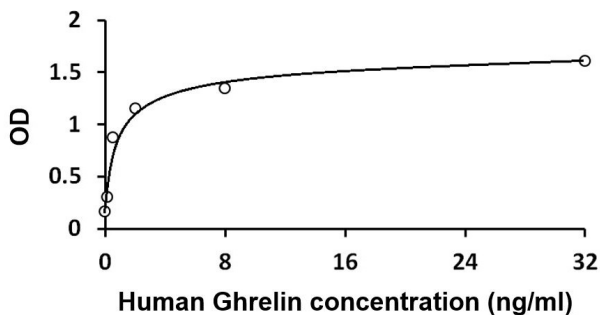
O-octanoylation or O-decanoylation is essential for ghrelin activity. The O-decanoylated forms Ghrelin-27-C10 and Ghrelin-28-C10 differ in the length of the carbon backbone of the carboxylic acid bound to Ser-26. A small fraction of ghrelin, ghrelin-28-C10:1, may be modified with a singly unsaturated carboxylic acid (PubMed:10604470).

Amidation of Leu-98 is essential for obestatin activity. [UniProt]

Cellular Localization

Secreted. [UniProt]

Images



ARG82772 Human Ghrelin ELISA Kit standard curve image

ARG82772 Human Ghrelin ELISA Kit results of a typical standard run with optical density reading at 450 nm.