

□ Cat # RP-1473

Human Growth Hormone Releasing Hormone

**Size:** □ 250 ug

Growth-hormone-releasing hormone (GHRH), also known as growth-hormone-releasing factor (GRF or GHRF) or somatotrin, is a 44-amino acid peptide hormone produced in the arcuate nucleus of the hypothalamus. GHRH stimulates GH production and release by binding to the GHRH Receptor (GHRHR) on cells in the anterior pituitary. The GHRHR is a member of the secretin family of G protein-coupled receptors, and is located on chromosome 7. This protein is transmembranous with seven folds, and its molecular weight is approximately 44 kD.

GHRH is released from neuro secretory nerve terminals of these arcuate neurons, and is carried by the hypothalamo-hypophysial portal circulation to the anterior pituitary gland where it stimulates growth hormone (GH) secretion. GHRH also stimulates the production of GH. GHRH is released in a pulsatile manner, stimulating similar pulsatile release of GH. In addition, GHRH also promotes slow-wave sleep directly.

#### Source and storage

Growth Hormone Releasing Hormone Human Synthetic is a single, non-glycosylated, polypeptide chain containing 29 amino acids and having a molecular mass of 3358 Dalton (>95% pure). Supplied as lyophilized (freeze-dried) powder. No additives. Corresponds to the amino-terminal segment of the naturally occurring human growth hormone-releasing hormone consisting of 44 amino acid residues.

The GHRH is purified by proprietary chromatographic techniques. The protein (1 mg/ml) was lyophilized after extensive dialyses against 1.7 mg sodium phosphate buffer (0.1 mg sodium phosphate monobasic & 1.6 mg sodium phosphate dibasic).

#### Storage and Stability:

Lyophilized Growth Hormone Releasing Hormone although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution GHRF should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). **Please prevent freeze-thaw cycles.**

**Applications:** GHRH increases plasma growth hormone concentrations by directly stimulating the anterior pituitary gland to release natural human growth hormone.

#### Usage:

This item is for LABORATORY RESEARCH USE ONLY.

**References:** Obál F (2001). Rev Neurol (Paris) 157 (11 Pt 2): S12–5. Tang SS (2004) Acta Pharmacol. Sin. 25 (11): 1464–70. Teichman, SL et al. (2006) J Clin Endocrinol Metab. 91 (3): 799–805

#### Related items:

Catalog#	ProdDescription
PP-1330 Peptide-2)	GHRP-2 (Growth Hormone Releasing
RP-1473 Hormone	Human Growth Hormone Releasing
RP-1495 Peptide-2	Human Growth Hormone Releasing
RP-1515	Growth Hormone Releasing Peptide-6
SP-61712-1 (MW: 3358.03)	Growth Hormone Releasing Factor, GRF
SP-88147-1 - 40), (MW: 4543.14)	Growth Hormone Releasing Factor, GRF (1
SP-88148-1 - 40), human ( (MW: 4544.12)	Growth Hormone Releasing Factor, GRF, (1
RP-1473	rev.140221p