Data Sheet (Cat.No.TMPY-00186)

TargetMol

GHRH Protein, Human, Recombinant (hFc)

General Information

Synonyms:	GRF;INN;growth hormone releasing hormone;GHRF
Protein Construction:	A DNA sequence encoding the human GHRH (NP_066567.1) (Tyr32-Leu75) was expressed with the Fc region of human IgG1 at the N-terminus. Predicted N terminal: Glu
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P01286-1
Molecular Weight:	33.5 kDa (predicted)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 85 % as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

The role of hypothalamic growth hormone-releasing hormone (GHRH) in the release of growth hormone (GH) from the pituitary is well established. Extra-hypothalamic growth hormone-releasing hormone (GHRH) plays an important role in infertility. Growth hormone releasing hormone (GHRH) has recently been shown to increase the level of gamma-aminobutyric acid (GABA) and activate GABA receptors (GABARs) in the cerebral cortex. GABA is an inhibitory neurotransmitter that can inhibit seizures. GHRH may play an important role in inhibiting seizures by

activating GABAARs. GHRH is produced by tumor cells, acts in an autocrine/paracrine manner, and requires the presence of GHRH receptor (GHRH-R) on the tumor cells to exert its effects. GHRH activity can be effectively blocked by synthetic antagonists of its receptor and hence, the expression of GHRH-R by tumor cells could serve as a predictor of response to GHRH-R antagonist therapy. The neurovascular protective effect of GHRH analogs during the early stage of diabetic retinopathy through their antioxidant and anti-inflammatory properties. GHRH antagonists can be a therapeutic option for thyroid cancer patients.

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