Synonym

GHR,GHBP,GH receptor

Source

MABSol® Biotinylated Human GHR Protein, His Tag, primary amine labeling (GHR-H8222) is expressed from human HEK293 cells. It contains AA Ala 27 - Tyr 264 (Accession # P10912-1). It is the biotinylated form of Human Growth Hormone R (GHR) Protein (GHR-H5222).
Predicted N-terminus: Ala 27

Molecular Characterization

This protein carries a polyhistidine tag at the C-terminus

The protein has a calculated MW of 29.6 kDa. The protein migrates as 40-60 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Labeling

The primary amines in the side chains of lysine residues and the N-terminus of the protein are conjugated with biotins using standard chemical labeling method. A standard biotin reagent (13.5 angstroms) is used in this product.

Protein Ratio

Passed as determined by the HABA assay / binding ELISA.

Endotoxin

Less than 1.0 EU per μg by the LAL method.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

Storage

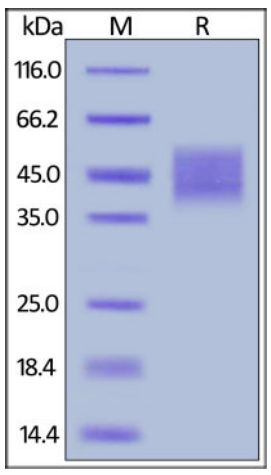
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

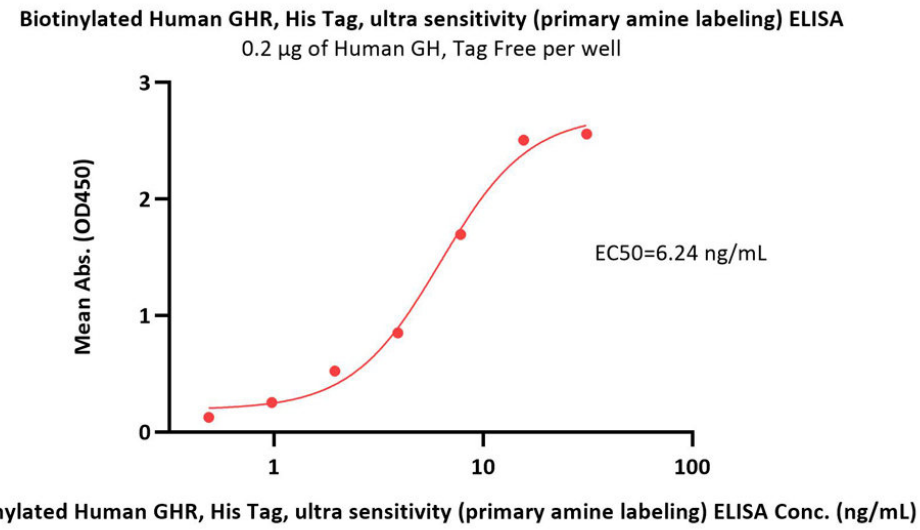
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Biotinylated Human GHR Protein, His Tag, primary amine labeling on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

Bioactivity-ELISA



Immobilized Human GH, Tag Free at 2 μg/mL (100 μL/well) can bind Biotinylated Human GHR Protein, His Tag, primary amine labeling (Cat. No. GHR-H8222) with a linear range of 0.5-8 ng/mL (QC tested).

Background

Growth hormone receptor (GHR) is also known as somatotropin receptor, growth hormone-binding protein (GHBR), which belongs to the type I cytokine receptor family or Type 1 subfamily. GHR contains one fibronectin type-III domain. GHR / GHBR is expressed in various tissues with high expression in liver and skeletal muscle. The soluble form (GHBP) is produced by phorbol ester-promoted proteolytic cleavage at the cell surface (shedding) by ADAM17/TACE. GHR is receptor for pituitary gland growth hormone involved in regulating postnatal body growth. On ligand binding, couples to the JAK2/STAT5 pathway. The soluble form (GHBP) acts as a reservoir of growth hormone in plasma and may be a modulator/inhibitor of GH signaling.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.