Mouse Growth Hormone Receptor / GHR / GHBP Protein (His Tag)

Catalog Number: **50043-M08H**

Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

GHBP; GHR/BP

Protein Construction:

A DNA sequence encoding the extracellular domain of mouse GHR (NP_034414.2) (Met 1-Gln 273) was fused with a polyhistidine tag at the C-terminus.

Source: Mouse

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE.

Bio Activity:

Measured by its ability to inhibit proliferation of INS-1 cells induced by human growth hormone. The ED_{50}?for this effect is 2-8μg/mL in the presence of 50 ng/mL human growth hormone.

Endotoxin:

< 1.0 EU per μg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Thr 25

Molecular Mass:

The recombinant mouse GHR consists of 260 amino acids and has a predicted molecular mass of 30.3 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rmGHR is approximately 40-45 kDa due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

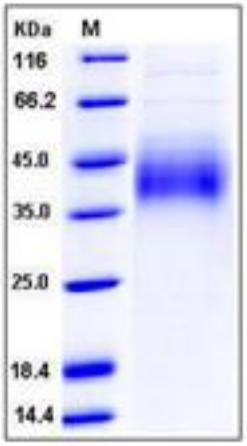
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Growth hormone receptor, also known as GH receptor and GHR, is a single-pass type I membrane protein which belongs to thetype I cytokine receptor family and type 1 subfamily. GHR contains onefibronectin type-III domain. Growth hormone receptor / GHR is expressed in various tissues with high expression in liver and skeletal muscle. Isoform4of GHR is predominantly expressed in kidney, bladder, adrenal gland and brain stem. Isoform1 expression of GHR in placenta is predominant in chorion and decidua. Isoform4is highly expressed in placental villi. Isoform2of GHR is expressed in lung, stomach and muscle. Growth hormone receptor / GHR is a receptor for pituitary gland growth hormone. It is involved in regulating postnatal body growth. On ligand binding, it couples to the JAK2 / STAT5 pathway. Isoform2of GHR up-regulates the production of GHBP and acts as a negative inhibitor of GH signaling. Defects in GHR are a cause of Laron syndrome (LARS) which is a severe form of growth hormone insensitivity characterized by growth impairment, short stature, dysfunctional growth hormone receptor, and failure to generate insulin-like growth factor I in response to growth hormone. Defects in GHR may also be a cause of idiopathic short stature autosomal (ISSA) which is defined by a subnormal rate of growth.

References

1.Leung DW. et al., 1987, Nature. 330:537-43. 2.Sobrier M-L. et al., 1997, J Clin Endocrinol Metab. 82: 435-7. 3.Enberg B. et al., 2000, Eur J Endocrinol. 143: 71-6.