Ghr
Recombinant Mouse Growth Hormone Receptor (His & Fc Tag)

Catalog No.	CRM517A-HisFc CRM517B-HisFc	**Quantity:**	50 µg 100 µg

Alternate Names: Growth hormone receptor, GH receptor, Somatotropin receptor, Growth hormone-binding protein, GH-binding protein, GHBP, Serum-binding protein

Description: Growth hormone receptor (GHR) is a single-pass type I membrane protein containing one fibronectin type-III domain. GHR is expressed in various tissues with high expression in liver and skeletal muscle. Isoform 4 of GHR is predominantly expressed in kidney, bladder, adrenal gland, placental villi and brain stem. Isoform 1 expression of GHR in the placenta is predominant in chorion and decidua. Isoform 2 of GHR is expressed in lung, stomach and muscle. 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. Isoform 2 of 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 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.

UniProt ID: P16882

Accession Number: NP_034414.2

Protein Construction: A DNA sequence encoding the extracellular domain (Met 1-Gln 273) of mouse GHR precursor was fused with the C-terminal polyhistidine-tagged Fc region of human IgG1 at the C-terminus.

Source: HEK293 Cells

Formulation: Lyophilized from sterile PBS, pH 7.4
Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization.

Molecular Weight: The rhGHR/Fc is a disulfide-linked homodimer after removal of the signal peptide. The reduced monomer consists of 497 aa with a predicted MW of 56.8 kDa and migrates at ~70-80 kDa in reduced SDS-PAGE, due to glycosylation.

Purity: > 85 % as determined by SDS-PAGE.

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

Biological Activity: Measured by its ability to inhibit proliferation of INS-1 cells induced by human growth hormone. The ED50 for this effect is 0.5-2 µg/mL in the presence of 50 ng/mL human growth hormone.

Predicted N-terminal: Thr 25

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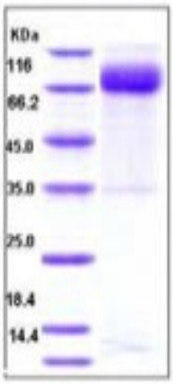
Reconstitution: **Centrifuge vial prior to opening.** Add sterile distilled water to a concentration of 0.1 mg/mL and gently pipette the solution up and down the sides of the vial.
DO NOT VORTEX. Allow several minutes for complete reconstitution.

Storage & Stability: Stable for up to 1 year from date of receipt at -20°C to -80°C
After reconstitution, store working aliquots at -20°C to -80°C.
Avoid repeated freeze-thaw cycles.

SDS-PAGE



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