Recombinant Protein Technical Manual

Recombinant Mouse GHR/GHBP Protein (His & Fc Tag)(Active)

RPES5063

Product Data:

Product SKU: RPES5063

Size: 50µg

Species: Mouse

Expression host: HEK293 Cells

Uniprot: NP_034414.2

Protein Information:

Molecular Mass:	56.8 kDa
AP Molecular Mass:	70-80 kDa
Tag:	C-His-Fc
Bio-activity:	Measured by its ability to inhibit proliferation of INS 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.
Purity:	> 85 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU per µg of the protein as determined by the LAL method.
Storage:	Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping:	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation:	Lyophilized from sterile PBS, pH 7.4
Reconstitution:	Please refer to the printed manual for detailed information.
Application:	
Synonyms:	Growth Hormone Receptor;GHBP;GHR/BP

Immunogen Information:

Sequence: Met 1-Gln 273

Background:

Growth hormone receptor, also known as GH receptor and GHR, is a single-pass type I membrane protein which belongs to the type I cytokine receptor family and type 1 subfamily. GHR contains one fibronectin type-III domain. Growth hormone receptor / 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 and brain stem. Isoform 1 expression of GHR in placenta is predominant in chorion and decidua. Isoform 4 is highly expressed in placental villi. Isoform 2 of 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. 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 (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.