

## Recombinant Rat Growth Hormone Receptor/GHR Protein (Fc Tag)

**Catalog No.** PKSR030393

**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

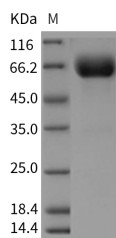
### Description

<b>Synonyms</b>	GHR/BP;MGC124963;MGC156665
<b>Species</b>	Rat
<b>Expression Host</b>	HEK293 Cells
<b>Sequence</b>	Met1-Arg265
<b>Accession</b>	P16310-1
<b>Calculated Molecular Weight</b>	55.4 kDa
<b>Observed molecular weight</b>	66 kDa
<b>Tag</b>	C-hFc
<b>Bioactivity</b>	Measured by its ability to inhibit proliferation of INS-1 cells induced by human growth hormone. The ED50 for this effect is 0.075-0.3 µg/mL in the presence of 50 ng/mL human growth hormone.

### Properties

<b>Purity</b>	> 95 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, 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°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile PBS, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



> 95 % as determined by reducing SDS-PAGE.

### Background

#### For Research Use Only

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.