

Product datasheet

Recombinant Human Growth hormone receptor protein ab208328

[1 Image](#)

Description

Product name	Recombinant Human Growth hormone receptor protein
Purity	> 95 % SDS-PAGE. Affinity purified
Endotoxin level	< 1.000 Eu/μg
Expression system	Insect cells
Accession	<u>P10912</u>
Protein length	Protein fragment
Animal free	No
Nature	Recombinant
Species	Human
Sequence	FSGSEATAAI LSRAPWSLQS VNPGLKTNSS KEPKFTKCRS PERETF SCHW TDEVHHGTKN LGPIQLFYTR RNTQEWTQEW KECPDYVSAG ENSCYFNSSF TSMWIPYCIK LTSNGGTVDE KCFSVDEMQ PDPPIALNWT LLNVSLTGIH ADIQVRWEAP RNADIQKGWM VLEYELQYKE VNETKWKMMMD PILTTSPVY SLKVDKEYEV RVRSKQRNSG NYGEFSEVLY VTLPQMSQFT CEEDFYLEHH HHHH
Predicted molecular weight	29 kDa including tags
Amino acids	19 to 264
Tags	His tag C-Terminus
Additional sequence information	NP_000154. Extracellular domain

Specifications

Our **Abpromise guarantee** covers the use of **ab208328** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications SDS-PAGE

Form Liquid

Preparation and Storage

Stability and Storage Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

pH: 7.40
Constituents: 90% PBS, 10% Glycerol (glycerin, glycerine)

General Info

Function 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.
Isoform 2 up-regulates the production of GHBP and acts as a negative inhibitor of GH signaling.

Tissue specificity Expressed in various tissues with high expression in liver and skeletal muscle. Isoform 4 is predominantly expressed in kidney, bladder, adrenal gland and brain stem. Isoform 1 expression in placenta is predominant in chorion and decidua. Isoform 4 is highly expressed in placental villi. Isoform 2 is expressed in lung, stomach and muscle. Low levels in liver.

Involvement in disease Defects in GHR are a cause of Laron syndrome (LARS) [MIM:262500]. 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 be a cause of idiopathic short stature autosomal (ISSA) [MIM:604271]. Short stature is defined by a subnormal rate of growth.

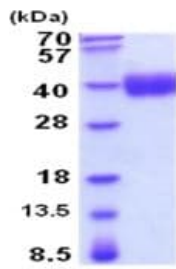
Sequence similarities Belongs to the type I cytokine receptor family. Type 1 subfamily.
Contains 1 fibronectin type-III domain.

Domain The WSXWS motif appears to be necessary for proper protein folding and thereby efficient intracellular transport and cell-surface receptor binding.
The box 1 motif is required for JAK interaction and/or activation.
The extracellular domain is the ligand-binding domain representing the growth hormone-binding protein (GHBP).
The ubiquitination-dependent endocytosis motif (UbE) is required for recruitment of the ubiquitin conjugation system on to the receptor and for its internalization.

Post-translational modifications The soluble form (GHBP) is produced by phorbol ester-promoted proteolytic cleavage at the cell surface (shedding) by ADAM17/TACE. Shedding is inhibited by growth hormone (GH) binding to the receptor probably due to a conformational change in GHR rendering the receptor inaccessible to ADAM17.
On GH binding, phosphorylated on tyrosine residues in the cytoplasmic domain by JAK2.
On ligand binding, ubiquitinated on lysine residues in the cytoplasmic domain. This ubiquitination is not sufficient for GHR internalization.

Cellular localization Secreted; Cell membrane. On growth hormone binding, GHR is ubiquitinated, internalized, down-regulated and transported into a degradative or non-degradative pathway and Cell membrane.
Remains fixed to the cell membrane and is not internalized.

Images



15% SDS-PAGE analysis of **ab203528** (3 µg)

Molecular Weight: 29.4 kDa (254 aa); 28-40 kDa (SDS-PAGE under reducing conditions)

SDS-PAGE - Recombinant Human Growth hormone receptor protein (ab208328)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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