

Product datasheet

Recombinant Pig Growth hormone receptor protein (His tag) ab235713

1 Image

Description

Product name	Recombinant Pig Growth hormone receptor protein (His tag)	
Purity	> 85 % SDS-PAGE.	
Expression system	Escherichia coli	
Accession	P19756	
Protein length	Protein fragment	
Animal free	No	
Nature	Recombinant	
Species	Pig	
Sequence	<p>FSGSEATPAVLVRASQSLQRVHPGLETNSSGKPKFTK CRSPELETFSCHW TDGVRHGLQSPGSIQLFYRRSTQEWTEWKECPDY SAGENSCYFNSSY TSWIPYCIKLTSNGGTVDQKCFVSVEEMQPDPIGLNW TLLNISLTGIH ADIQVRWEPPPNADVQKGWVLEYLELQYKEVNETQWK MMDPVLSTSPVY SLRLDKEYEVRVRSRQRNSEKYGEFSEVLVTLQMS PFACEEDFR</p>	
Predicted molecular weight	30 kDa including tags	
Amino acids	19 to 264	
Tags	His tag C-Terminus	
Additional sequence information	Extracellular domain. C-terminal 6xHis-tagged.	

Specifications

Our [Abpromise guarantee](#) covers the use of **ab235713** 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 -20°C or -80°C. Avoid freeze / thaw cycle.

Constituents: Tris buffer, 50% Glycerol

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.

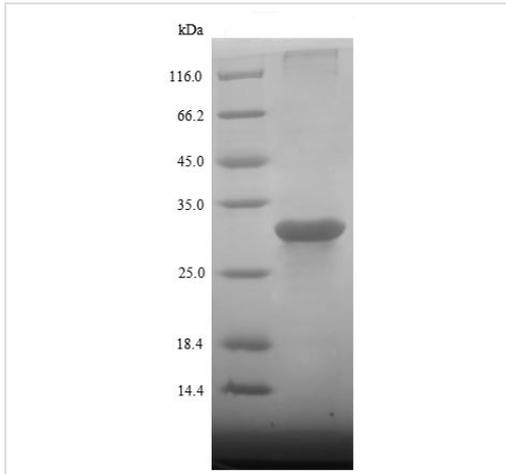
On ligand binding, ubiquitinated on lysine residues in the cytoplasmic domain. This ubiquitination is not sufficient for GHR internalization.

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



SDS-PAGE - Recombinant Pig Growth hormone receptor protein (His tag) (ab235713)

(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) analysis with 5% enrichment gel and 15% separation gel of ab235713.

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