


Anti-Growth hormone receptor antibody ab65304

★★★★★ [2 Abreviews](#) [2 References](#) [2 Images](#)

Overview

Product name	Anti-Growth hormone receptor antibody
Description	Rabbit polyclonal to Growth hormone receptor
Host species	Rabbit
Specificity	From Jan 2024, QC testing of replenishment batches of this polyclonal changed. All tested and expected application and reactive species combinations are still covered by our Abcam product promise. However, we no longer test all applications. For more information on a specific batch, please contact our Scientific Support who will be happy to help.
Tested applications	Suitable for: ICC/IF, WB
Species reactivity	Reacts with: Human Predicted to work with: Non human primates 
Immunogen	Synthetic peptide conjugated to KLH derived from within residues 1 - 100 of Human Growth hormone receptor. Read Abcam's proprietary immunogen policy (Peptide available as ab73395 .)
Positive control	WB: A549, HeLa and DU 145 whole cell lysate. ICC/IF: HepG2 cells.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	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.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS
Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising	

agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.

Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab65304 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF	★★★★★ (1)	Use a concentration of 5 µg/ml.
WB	★★★★★ (1)	Use a concentration of 1 µg/ml. Detects a band of approximately 76 kDa (predicted molecular weight: 71 kDa).

Target

Function	<p>Receptor for pituitary gland growth hormone involved in regulating postnatal body growth. On ligand binding, couples to the JAK2/STAT5 pathway.</p> <p>The soluble form (GHBP) acts as a reservoir of growth hormone in plasma and may be a modulator/inhibitor of GH signaling.</p> <p>Isoform 2 up-regulates the production of GHBP and acts as a negative inhibitor of GH signaling.</p>
Tissue specificity	<p>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.</p>
Involvement in disease	<p>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.</p> <p>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.</p>
Sequence similarities	<p>Belongs to the type I cytokine receptor family. Type 1 subfamily.</p> <p>Contains 1 fibronectin type-III domain.</p>
Domain	<p>The WSXWS motif appears to be necessary for proper protein folding and thereby efficient intracellular transport and cell-surface receptor binding.</p> <p>The box 1 motif is required for JAK interaction and/or activation.</p> <p>The extracellular domain is the ligand-binding domain representing the growth hormone-binding protein (GHBP).</p> <p>The ubiquitination-dependent endocytosis motif (UbE) is required for recruitment of the ubiquitin conjugation system on to the receptor and for its internalization.</p>
Post-translational modifications	<p>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</p>

to ADAM17.

On GH binding, phosphorylated on tyrosine residues in the cytoplasmic domain by JAK2.

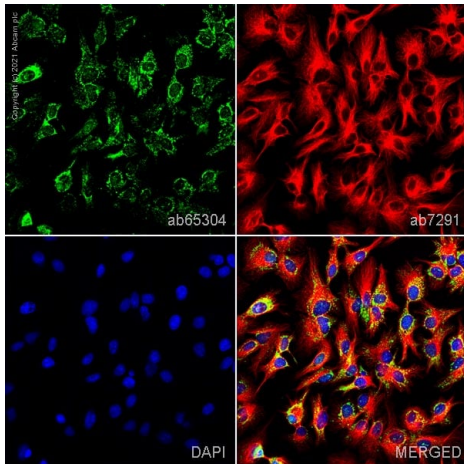
On ligand binding, ubiquitinated on lysine residues in the cytoplasmic domain. This ubiquitination is not sufficient for GHR internalization.

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.

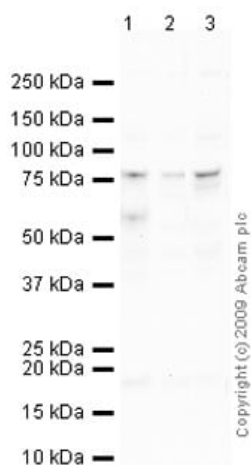
Images



Immunocytochemistry/ Immunofluorescence - Anti-Growth hormone receptor antibody (ab65304)

ab65304 staining Growth hormone receptor in HepG2 cells. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% PBS-Tween for 5 minutes and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at 4°C with ab65304 at 5µg/ml and **ab7291**, Mouse monoclonal [DM1A] to alpha Tubulin - Loading Control. Cells were then incubated with **ab150081**, Goat polyclonal Secondary Antibody to Rabbit IgG - H&L (Alexa Fluor® 488), pre-adsorbed at 1/1000 dilution (shown in green) and **ab150120**, Goat polyclonal Secondary Antibody to Mouse IgG - H&L (Alexa Fluor® 594), pre-adsorbed at 1/1000 dilution (shown in pseudocolour red). Nuclear DNA was labelled with DAPI (shown in blue).

Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown.



Western blot - Anti-Growth hormone receptor antibody (ab65304)

All lanes : Anti-Growth hormone receptor antibody (ab65304) at 1 µg/ml

Lane 1 : A549 (Human lung adenocarcinoma epithelial cell line) Whole Cell Lysate

Lane 2 : HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate

Lane 3 : DU 145 (Human prostate carcinoma cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 71 kDa

Observed band size: 76 kDa

Additional bands at: 56 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 12 minutes

Growth hormone receptor contains a number of potential glycosylation sites (SwissProt) which may explain its migration at a higher molecular weight than predicted.

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