abcam

Product datasheet

Anti-Growth hormone receptor antibody ab65304

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概述

产品名称 Anti-Growth hormone receptor抗体

描述 兔多克隆抗体to Growth hormone receptor

宿主 Rabbit

特异性 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.

经**测试应用 适用于:** ICC/IF, WB

种属反应性 与反应: Human

预测可用于: Non human primates 4

免疫原 Synthetic peptide conjugated to KLH derived from within residues 1 - 100 of Human Growth

hormone receptor.参阅Abcam的专有抗源政策(Peptide available as ab73395.)

阳性对照 WB: A549, HeLa and DU 145 whole cell lysate. ICC/IF: HepG2 cells.

常规说明

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.

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

性能

形式 Liquid

存放说明 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.

存储溶液 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

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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.

纯**度** Immunogen affinity purified

应用

The Abpromise guarantee Abpromise™承诺保证使用ab65304于以下的经测试应用

"应用说明"部分下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
ICC/IF	*** <u>*</u>	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).

功能 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.

组织特异性 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.

疾病相关 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.

序列相似性 Belongs to the type I cytokine receptor family. Type 1 subfamily.

Contains 1 fibronectin type-III domain.

结**构域** 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.

翻译后修饰 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

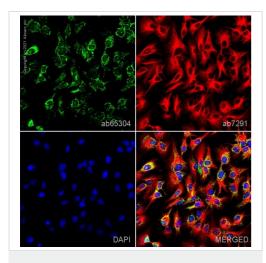
to ADAM17.

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.

细胞定位

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.

图片



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 lgG - H&L (Alexa Fluor® 488), pre-adsorbed at 1/1000 dilution (shown in green) and ab150120, Goat polyclonal Secondary Antibody to Mouse lgG - 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.

1 2 3

250 kDa —

150 kDa —

100 kDa —

75 kDa —

37 kDa —

25 kDa —

20 kDa —

10 kDa —

10 kDa —

10 kDa —

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

All lanes : Anti-Growth hormone receptor antibody (ab65304) at 1 $\mu g/ml$

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 lgG - 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.

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

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