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# Rabbit Anti-Growth hormone receptor antibody

SL0654R

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| **Product Name:** | Growth hormone receptor |
| **Chinese Name:** | 生长激素受体抗体 |
| **Alias:** | GH receptor; GHBP; GHR; Growth hormone receptor precursor; Serum binding protein; Somatotropin receptor; GHR_HUMAN. |
| 文献引用 PubMed : | **Specific References(6)**\|SL0654R has been referenced in 6 publications.<br>**[IF=2.51]**Yang, Hai Li, et al. "Effect of suppressor of cytokine signaling 2 (SOCS2) on fat metabolism induced by growth hormone (GH) in porcine primary adipocyte." Molecular biology reports 39.9 (2012): 9113-9122.**WB;Pig**.<br>PubMed:22729878<br>**[IF=2.02]**Wang, Zheng, et al. "RhGH attenuates ischemia injury of intrahepatic bile ducts relating to liver transplantation." Journal of Surgical Research 171.1 (2011): 300-310.**IHC-P;Rat**.<br>PubMed:20462597<br>**[IF=4.24]**Hetz, Jennifer A., et al. "Growth axis maturation is linked to nutrition, growth and developmental rate." Molecular and Cellular Endocrinology (2015).**WB;**<br>PubMed:25896544<br>**[IF=1.27]**Song, Cheng-Jun, et al. "Effects of sericin on the testicular growth hormone/insulin-like growth factor-1 axis in a rat model of type 2 diabetes." International Journal of Clinical and Experimental Medicine 8.7 (2015): 10411-10419.**WB;Rat**.<br>PubMed:26379831<br>**[IF=1.84]**Zhao, Yong, et al. "Inhibition of peripubertal sheep mammary gland |

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| | development by cysteamine through reducing progesterone and growth factor production." Theriogenology (2016).**WB;Sheep**.<br>PubMed:28043364<br>**[IF=3.86]**Chu, Meiqiang, et al. "MicroRNA-126 participates in lipid metabolism in mammary epithelial cells." Molecular and Cellular Endocrinology (2017).**WB;Human**.<br>PubMed:28599789 |
| **Organism Species:** | Rabbit |
| **Clonality:** | Polyclonal |
| **React Species:** | Human,Mouse,Rat,Chicken,Dog,Pig,Cow,Sheep, |
| **Applications:** | WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800Flow-Cyt=1μg/TestIF=1:100-500（Paraffin sections need antigen repair）<br>not yet tested in other applications.<br>optimal dilutions/concentrations should be determined by the end user. |
| **Molecular weight:** | 68kDa |
| **Cellular localization:** | The cell membrane |
| **Form:** | Lyophilized or Liquid |
| **Concentration:** | 1mg/ml |
| **immunogen:** | KLH conjugated synthetic peptide derived from human GHR:101-200/451<Cytoplasmic> |
| **Lsotype:** | IgG |
| **Purification:** | affinity purified by Protein A |
| **Storage Buffer:** | 0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol. |
| **Storage:** | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C. |
| **PubMed:** | PubMed |
| **Product Detail:** | This gene encodes a member of the type I cytokine receptor family, which is a transmembrane receptor for growth hormone. Binding of growth hormone to the receptor leads to receptor dimerization and the activation of an intra- and intercellular signal transduction pathway leading to growth. Mutations in this gene have been associated with Laron syndrome, also known as the growth hormone insensitivity syndrome (GHIS), a disorder characterized by short stature. In humans and rabbits, but not rodents, growth hormone binding protein (GHBP) is generated by proteolytic cleavage of the extracellular ligand-binding domain from the mature growth hormone receptor protein. Multiple alternatively spliced transcript variants have been found for this gene.[provided by RefSeq, Jun 2011].<br><br>**Function:**<br>Receptor for pituitary gland growth hormone involved in regulating postnatal body growth. On ligand binding, couples to the JAK2/STAT5 pathway.<br>The soluble form (GHBP) acts as a reservoir of growth hormone in plasma and may be a modulator/inhibitor of GH signaling. |

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| | Isoform 2 up-regulates the production of GHBP and acts as a negative inhibitor of GH signaling.<br><br>**Subunit:**<br>On growth hormone (GH) binding, forms homodimers and binds JAK2 via a box 1-containing domain. Binding to SOCS3 inhibits JAK2 activation, binding to CIS and SOCS2 inhibits STAT5 activation. Interacts with ADAM17.<br><br>**Subcellular Location:**<br>Cell membrane; Single-pass type I membrane protein. Note=On growth hormone binding, GHR is ubiquitinated, internalized, down-regulated and transported into a degradative or non-degradative pathway.<br>Isoform 2: Cell membrane; Single-pass type I membrane protein. Note=Remains fixed to the cell membrane and is not internalized.<br>Growth hormone-binding protein: Secreted. Note=Complexed to a substantial fraction of circulating GH.<br><br>**Tissue Specificity:**<br>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.<br><br>**Post-translational modifications:**<br>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.<br>On GH binding, phosphorylated on tyrosine residues in the cytoplasmic domain by JAK2.<br>On ligand binding, ubiquitinated on lysine residues in the cytoplasmic domain. This ubiquitination is not sufficient for GHR internalization.<br><br>**DISEASE:**<br>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. Note=The disease is caused by mutations affecting the gene represented in this entry.<br>Idiopathic short stature autosomal (ISSA) [MIM:604271]: Short stature is defined by a subnormal rate of growth. Note=The disease is caused by mutations affecting the gene represented in this entry.<br><br>**Similarity:**<br>Belongs to the type I cytokine receptor family. Type 1 subfamily. |

Contains 1 fibronectin type-III domain.

**SWISS:**
P10912

**Gene ID:**
2690

**Database links:**

Entrez Gene: 2690Human

Entrez Gene: 14600Mouse

Entrez Gene: 25235Rat

Omim: 600946Human

SwissProt: P10912Human

SwissProt: P16882Mouse

SwissProt: P16310Rat

Unigene: 125180Human

Unigene: 684631Human

Unigene: 3986Mouse

Unigene: 2178Rat



**Important Note:**
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

生长激素受体(growth hormone receptor，GHR)是cell factor/造血因子受体超级家族成员之一。
生长激素受体通过二聚体的形式和生长激素(growth hormone, GH)相结合，然后诱发Janus 激酶2 (Janus kinase 2，JAK2：是很多cell factor、生长因子及Interferon的重要信号传感器)等cell

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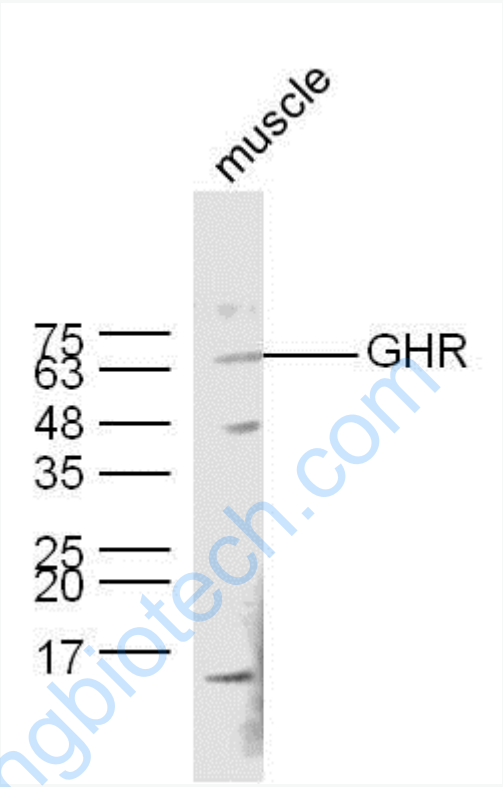
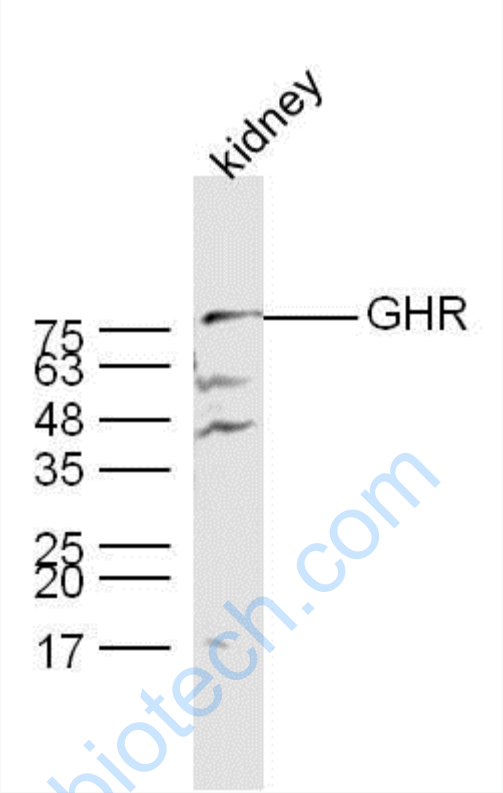
| | factor酪氨酸磷酸化并通过4条不同的途径将信号传入细胞内从而产生一系列的生理效应。 |
| **Picture:** |  <br>Sample:<br>Muscle (Mouse) Lysate at 40 ug<br>Primary: Anti-GHR (SL0654R) at 1/300 dilution<br>Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution<br>Predicted band size: 68 kD<br>Observed band size: 68/76 kD |




Sample:

Kidney (Mouse) Lysate at 40 ug

Primary: Anti-GHR (SL0654R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 68 kD

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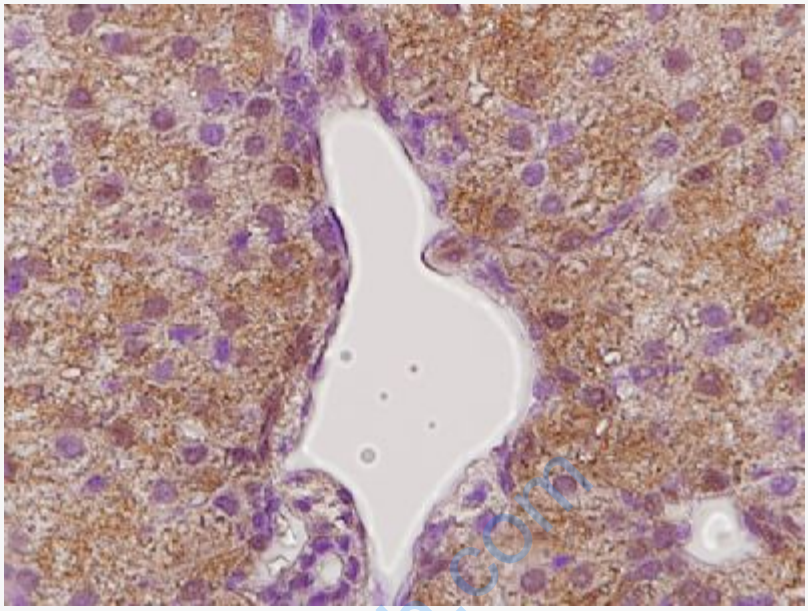
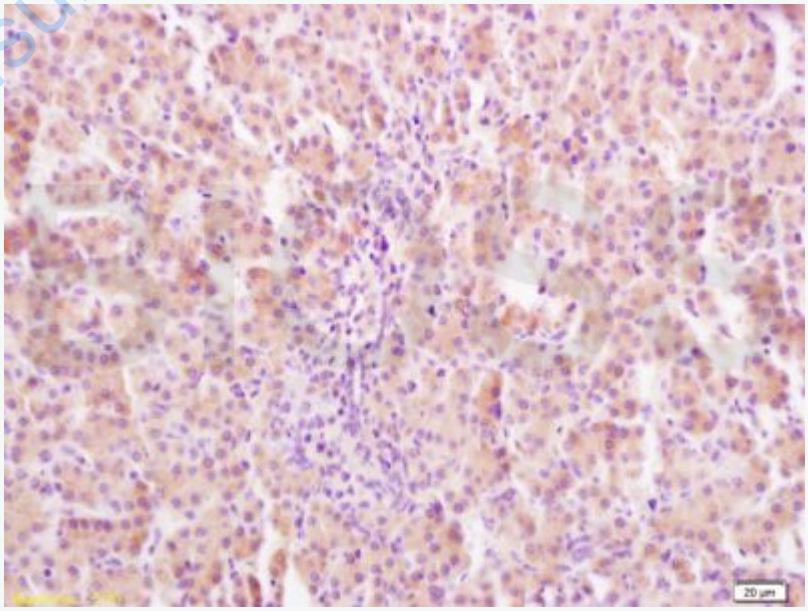


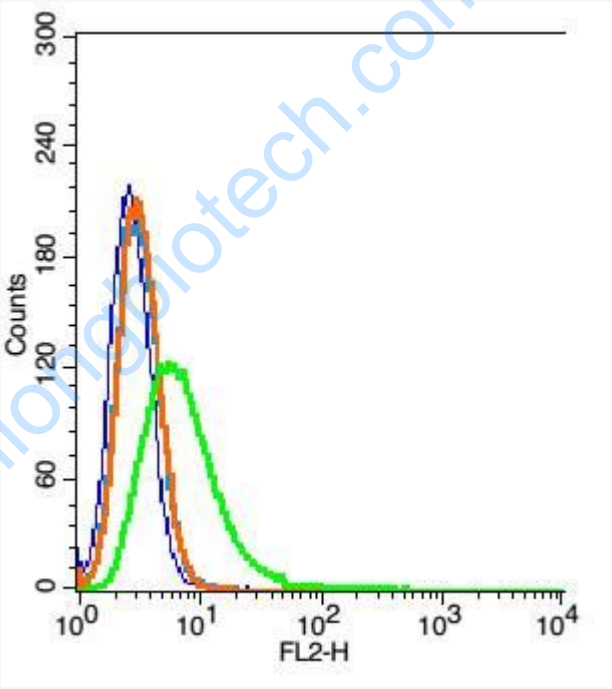
This image was generously provided by Brandon Menzies, PhD, from The University of Melbourne. Paraffin embedded tammar wallaby (Macropus eugenii) liver labeled with Rabbit Anti-GHR Polyclonal Antibody, Unconjugated (SL0654R) at 1:300 followed by conjugation to a secondary antibody and staining.



Tissue/cell: rat liver tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;

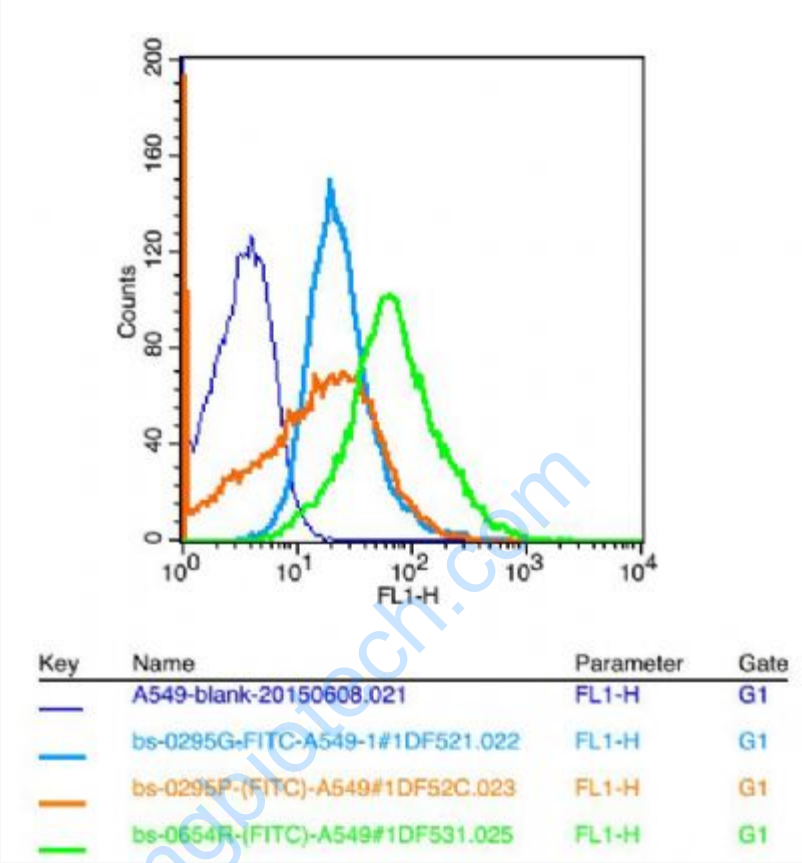
Incubation: Anti-GHR Polyclonal Antibody, Unconjugated(SL0654R) 1:400, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining






Blank control: A549(blue), the cells were fixed with 2% paraformaldehyde (10 min) .

Isotype Control Antibody: Rabbit IgG(orange) ; Secondary Antibody: Goat anti-rabbit IgG-FITC(white blue), Dilution: 1:100 in 1 X PBS containing 0.5% BSA ; Primary Antibody Dilution: 5µl in 100 µL1X PBS containing 0.5% BSA(green).




Positive control: A549 cells

Concebtration: 1μg/10^6 cells

Incubation conditions: Avoid light , 30 minutes on the ice.