Mouse Growth Hormone R/GHR Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF1360

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse Growth Hormone R/GHR in direct ELISAs and Western blots. In Western blots, approximately 50% cross-reactivity with recombinant rat GHR is observed and approximately 20% cross-reactivity with recombinant human GHR is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse Growth Hormone R/GHR Thr25-Gln273 Accession # Q3UP14
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μm filtered solution in PBS.

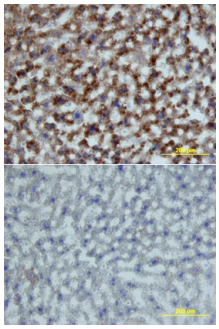
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	Recombinant Mouse Growth Hormone R/GHR Fc Chimera (Catalog # 1360-GR)
Immunohistochemistry	5-15 µg/mL	See Below

DATA

Immunohistochemistry



Growth Hormone R/GHR in Mouse Liver.
Growth Hormone R/GHR was detected in perfusion fixed frozen sections of mouse liver using Mouse Growth Hormone R/GHR Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1360) at 15 µg/mL overnight at 4 °C. Tissue was stained using the Anti-Goat HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS008) and counterstained with hematoxylin (blue). Lower panel shows a lack of labeling if primary antibodies are omitted and tissue is stained only with secondary antibody followed by incubation with detection reagents. View our protocol for Chromogenic IHC Staining of Frozen Tissue Sections.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

bio-techne
bio-techne.com
Global info@bio-techne.com techsupport@bio-techne.com
North America TEL 800 343 7475 Europe | Middle East | Africa TEL +44 (0)1235 529449
China info.cn@bio-techne.com TEL +86 (21) 52380373
Rest of World bio-techne.com/find-us/distributors TEL +1 612 379 2956

Mouse Growth Hormone R/GHR Antibody

Antigen Affinity-purified Polyclonal Goat IgG
Catalog Number: AF1360

BACKGROUND

Growth hormone (GH), also known as somatotropin, is a member of a family of growth factors that includes prolactin, placental lactogens, proliferins and somatolactin (1, 2). It is synthesized primarily by somatotropes in the anterior pituitary and is released as an endocrine hormone. Other cells and tissues, including lymphoid tissues, can also produce GH (3). GH is a pleiotropic molecule which can act directly or indirectly via IGF-I to regulate growth and metabolism as well as enhance T cell survival and thymic functions (1, 2, 4). GH exerts its biological actions by binding to the GH receptor (GHR) that is present in many cell types (1, 2). Mouse GHR cDNA encodes a 650 amino acid (aa) residue type I transmembrane protein with a 24 aa signal peptide, a 249 aa extracellular domain, a 24 aa transmembrane domain, and a 353 aa cytoplasmic domain (5). An alternatively spliced secreted isoform of mouse GHR also exists (6). This variant corresponds to the serum GH-binding protein. Ligation of GHR by GH has been shown to result in receptor dimerization and activation of the JAK/STAT signaling cascade (7). The soluble GHBP has been shown to interfere with GH signaling by competing with the transmembrane receptor of GH. Alternatively, the GHBP has also been shown to enhance GH action by slowing GH clearance (8).

References:

1. Goffin, V. *et al.* (1996) Endocrine Rev. **17**:385.
2. Le Roith, D. *et al.* (2001) Endocrine Rev. **22**:53.
3. Clark, R. (1997) Endocr. Rev. **18**:157.
4. Welniak, L.A. *et al.* (2002) J. Leukoc. Biol. **71**:381.
5. Smith, W.C. *et al.* (1989) Mol. Endocrinol. **3**:984.
6. Edens, A. *et al.* (1994) Endocrinol. **135**:2802.
7. Carter-Su, C. *et al.* (1996) Annu. Rev. Physiol. **58**:187.
8. Postel-Vinay, M.C. and J. Finidori (1995) Eur. J. Endocrinol. **133**:654.

bio-techne
bio-techne.com
Global info@bio-techne.com techsupport@bio-techne.com
North America TEL 800 343 7475 Europe | Middle East | Africa TEL +44 (0)1235 529449
China info.cn@bio-techne.com TEL +86 (21) 52380373
Rest of World bio-techne.com/find-us/distributors TEL +1 612 379 2956