

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
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

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.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
Immunohistochemistry	Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

BACKGROUND

Growth hormone (GH), also known as somatotropin, is a member of a family of growth factors that includes prolactin, placental lactogens, proliferins and somatotactin (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).

PRODUCT SPECIFIC NOTICES

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