Human Growth Hormone Antibody
Recombinant Monoclonal Mouse IgG2B Clone # 178915R
Catalog Number: MAB10671

DESCRIPTION
Species Reactivity Human
Specificity Detects human Growth Hormone in direct ELISAs.
Source Recombinant Monoclonal Mouse IgG2B Clone # 178915R
Purification Protein A or G purified from cell culture supernatant
Immunogen E. coli-derived recombinant human Growth Hormone
Phe27-Phe217
Accession # CAA23779
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 either lyophilized or 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.

ELISA
This antibody functions as an ELISA capture antibody when paired with Goat Anti-Human/Mouse/Rat Growth Hormone Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1067).
This product is intended for assay development on various assay platforms requiring antibody pairs. We recommend the Human Growth Hormone (GH) DuoSet ELISA Kit (Catalog # DY1067) for convenient development of a sandwich ELISA or the Human Growth Hormone Quantikine ELISA Kit (Catalog # DGH00) for a complete optimized ELISA.

DATA
ELISA

![Human Growth Hormone ELISA Standard Curve.](image)

PREPARATION AND STORAGE
Reconstitution Reconstitute at 0.5 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.
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 stored in secretory granules. The pulsatile release of GH into circulation is regulated by the concerted actions of the hypothalamic hormones, GH-releasing hormone (GHRH) and somatostatin (SST), as well as by signals from the periphery, ghrelin (3) and leptin (4). The human GH cDNA encodes a 217 amino acid (aa) precursor protein with a 26 aa putative signal peptide. By alternative splicing, at least four isoforms of GH have been identified (5). Human GH is a pleiotropic cytokine that exerts its biological actions by binding to the transmembrane GH receptor, which is present in many cell types (1, 2). GH stimulates the liver and other tissues to produce IGF-I, which regulates growth and metabolism. GH has also been shown to have direct effects on growth that is independent of IGF-I. GH, directly or indirectly via IGF-I, can act on B cells, T cells, NK cells, macrophages, and neutrophils to exert immunomodulatory activities (6). In addition, GH can act directly on various cell types to induce lipolysis, lactation, amino acid uptake, and protein synthesis (1, 2, 6).

References: