

Product Specification Sheet

**Human Growth Hormone (GH) antibody**

Cat. # GH11-M

Mouse Monoclonal Anti-human Growth Hormone (GH) IgG

**SIZE:** 100 ug

Human growth hormone (GH, Mr ~22 kDa) is a single polypeptide chain consisting of 191 amino acid residues and contains two intrachain disulfide bonds. GH is secreted by the somatotrophs, which constitute approximately 50% of the anterior pituitary cells. The structure of growth hormone is very similar to that of human placental lactogen; there is 92% homology between the two structures. Several molecular isoforms of GH circulate in the plasma. A percentage of the growth hormone in the circulation is bound to a protein (growth hormone binding protein, GHBP) which is the truncated part of the growth hormone receptor, and an acid labile subunit (ALS).

Growth hormone is necessary for normal linear growth. Its deficiency causes short stature while excess (prior to epiphyseal closure) leads to gigantism. The effects of growth hormone on skeletal growth are mediated by stimulation of somatomedin. Serum growth hormone levels are undetectable much of the day; levels peak after meals and undergo a sustained rise during sleep. This pulsatile nature of growth hormone secretion must be taken into consideration when determining GH levels in a clinical situation. Normal (fasting) growth hormone levels are usually considered to be less than 10 ng/ml. However, most bedridden patients have much lower concentrations of the growth hormone (approximately 1 ng/ml), whereas ambulatory patients are likely to show higher levels of GH, up to 10 ng/ml. This could be due to the fact that exercise stimulates growth hormone secretion.

In its role as an anabolic agent, HGH has been used by competitors in sports since the 1970s, and it has been banned by the IOC and NCAA. Traditional urine analysis could not detect doping with HGH, so the ban was unenforceable until the early 2000s when blood tests that could distinguish between natural and artificial hGH were starting to be developed.

**Source of Antigen and Antibodies**

<b>Antigen</b>	Purified human GH
<b>Ab Host/type</b>	Mouse, monoclonal IgG2ak (#GH11-M) supplied purified IgG in PBS, pH 7.4, 0.05% azide at 1 mg/ml or see lot sp. concn
<b>2-ab</b>	Goat Anti-mouse IgG-HRP conjugate Cat # 40120 (AP, biotin, FITC conjugates also available)
<b>-ve control IgG</b>	Cat # 20008-1, Mouse (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as -ve control

**Form & Storage of Antibodies/Peptide Control**

**Affinity pure IgG**

100 ug/100ul solution lyophilized powder  
 Supplied in **Buffer:** PBS+0.05% azide  
**Reconstitute powder** in PBS at 1mg/ml

**Storage**

**Short-term:** unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC..

**Long-term:** at -20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

**Stability:** 6-12 months at -20oC or below.

**Shipping:** 4oC for solutions and room temp for powder

**Recommended Usage**

Antibody is suitable for ELISA or RIA. Antibody dilution should be tested for a given application.

**Specificity & Cross-reactivity**

The antibody reacts with human native or recombinant GH. It has not been tested with other species GH (mouse, rat, monkey etc).

**References:** Baxter JD (1977) Clin. Res. 25, 461A; Chen EY (1989) Genomics 4, 479-497;

\*This product is for In vitro research use only.

**Related material available from ADI**

Catalog#	ProdDescription
<b>1600</b>	<b>Human GH ELISA kit, 96 tests</b>
1850	Human Cortisol ELISA Kit, 96 tests, Quantitative
1855	Human Progesterone (saliva) ELISA Kit,
1860	Human Progesterone ELISA Kit, 96 tests,
1865	Human Pregnenolone ELISA Kit, 96 tests,
1870	Human 17 alpha Hydroxyprogesterone ELISA,
1875	Human Aldosterone ELISA Kit, 96 tests,
1880	Human Testosterone ELISA Kit, 96 tests,
1885	Human free Testosterone ELISA Kit, 96 tests,
1905	Human 5a-Androstane-3a, 17b-diol Glucuronide
1910	Human Androstenedione ELISA Kit, 96 tests,
1915	Human Androstenedione (saliva) ELISA Kit, 96
1920	Human Estradiol ELISA Kit, 96 tests,
1925	Human Estrone ELISA Kit, 96 tests, Quantitative
1930	Human Estriol ELISA Kit, 96 tests, Quantitative
1940	Human Dihydrotestosterone (DHT) ELISA Kit,
1950	Human DHEA-sulphate (DHEA-S) ELISA Kit, 96
GH11-M	100929A