Growth hormone, 27-217 aa

Cat. No.IBGRH3001

Synonyms: Somatotropin, hGH

Description: Human growth hormone (hGH, somatotropin), a protein hormone from the anterior lobe of the pituitary gland, comprises a single polypeptide chain of 191 amino acid residues. The growth hormone amino acid sequence varies considerably between species, and non-primate growth hormones have little activity in man. Its main function is the stimulation of somatic and bone growth, as well as an increase in the size and mass of organs and tissues. Recombinant human growth hormone (rhGH) was purified by FPLC gel-filtration chromatography, after refolding of the isolated inclusion bodies in a renaturation buffer.

(kDa) Form: Liquid in 88 mM mannitol, 5 mM phosphate(pH 7.4) 70 57 Molecular Weight: 22.2 kDa (192 aa), confirmed by MALDI-TOF 40 28 Purity: > 95% by SDS - PAGE 18 **Concentration:** 1 mg/ml (determined by Bradford assay) 13.5 **Endotoxin Level:** < 1.0 EU per 1 µg of protein (determined by LAL method) 8.5 Activity: Measured in a cell proliferation assay using Nb2 Rat lymphoma cells. The ED50 for this effect is < 0.5 ng/ml.

Activity Assay

- 1. Cell line: Nb2-11 (Rat lymphoma cell)
- 2. Maintenance Condition: 10% FBS, 10% HS, 50uM 2-ME, RPMI 1640
- 3. Assay Medium: 10% HS, 50uM 2-ME, RPMI 1640 (without FBS)
- 4. Cell Density: 1 x 104 cells/well (96 well plate, final volume 100ul)
- 5. Starvation : 24hr, Assay medium
- 6. Incubation Time: 48hr (after sample treatment)
- 7. Concentration Range: 0.002 ng/ml 10 ng/ml
- 8. Detection Method : CCK-8 assay

Sequence of amino acids:

MFPTIPLSRL FDNAMLRAHR LHQLAFDTYQ EFEEAYIPKE QKYSFLQNPQ TSLCFSESIP TPSNREETQQ KSNLELLRIS LLLIQSWLEP VQFLRSVFAN SLVYGASDSN VYDLLKDLEE GIQTLMGRLE DGSPRTGQIF KQTYSKFDTN SHNDDALLKN YGLLYCFRKD MDKVETFLRI VQCRSVEGSC GF

General references:

Wickens., et al.(1978) J. Biol Chem. 253(7):2483-2495 Goeddel. et al.(1979) Proc. Natl. Acad. Sci. 76:106-110

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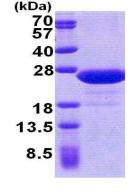




NCBI Accession No.: NP 000506

Human, Recombinant, E.coli

15% SDS-PAGE (3ug)







Chang, et al. (1978) Nature 275:617-624

Ullrich. et al. (1977) Science 196:1313-1319.

Storage: Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

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