



Human Growth Hormone (DAG372)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview	Recombinant Human growth hormone (hGH) is a single, non-glycosylated, polypeptide chain containing 192 amino acids. Molecular weight: 22,260Da. The sequence of the first five N-terminal amino acids was determined to be Met-Phe-Pro-Thr-Ile
Antigen Description	Growth hormone (GH) is a protein-based peptide hormone. It stimulates growth, cell reproduction and regeneration in humans and other animals. Growth hormone is a 191-amino acid, single-chain polypeptide that is synthesized, stored, and secreted by the somatotroph cells within the lateral wings of the anterior pituitary gland. Somatotropin refers to the growth hormone 1 produced naturally in animals, whereas the term somatropin refers to growth hormone produced by recombinant DNA technology, and is abbreviated HGH in humans.
Species	Human
Conjugate	Unconjugated
Applications	Specific methodologies have not been tested using this product.
Format	Purified, Lyophilized. Reconstitute using sterile deionized water to a concentration $\geq 100 \mu\text{g/ml}$. Further dilutions can be made in other aqueous buffers.
Concentration	Total protein: 1 mg/ml (OD _{280nm} , E _{0.1%} = 0.72) Activity: 3 Units/mg
Buffer	Lyophilized from sodium phosphate buffer containing mannitol
Preservative	None
Storage	2-8°C short term, -20°C long term

BACKGROUND

Introduction The protein encoded by this gene is a member of the somatotropin/prolactin family of hormones

which play an important role in growth control. The gene, along with four other related genes, is located at the growth hormone locus on chromosome 17 where they are interspersed in the same transcriptional orientation; an arrangement which is thought to have evolved by a series of gene duplications. The five genes share a remarkably high degree of sequence identity. Alternative splicing generates additional isoforms of each of the five growth hormones, leading to further diversity and potential for specialization. This particular family member is expressed in the pituitary but not in placental tissue as is the case for the other four genes in the growth hormone locus. Mutations in or deletions of the gene lead to growth hormone deficiency and short stature.

Keywords

GH; IGHD1B; GH-N; Somatotropin; GHN; Growth hormone; hGH-N; GH1; HGH
