Bioactive

GH1 (Human) Recombinant Protein

Catalog # P4397 Size 500 ug

Applications

Result of activity analysis

Result of activity analysis

Serial dilutions of human GH1, starting at 3 ng/mL, were added to PDF 9D11 cells. Proliferation was measured and the linear portion of the curve was us used to calculate the EC50.

Specification

Product Description	Human GH1 (P01241) recombinant protein expressed in *Escherichia coli*.
Sequence	MFPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTSLCFSESIPTPSNREE TQQKSNLELLRISLLLIQSWLEPVQFLRSVFANSLVYGASDSNVYDLLKDLEEGIQTLMGRLEDGS PRTGQIFKQTYSKFDTNSHNDDALLKNYGLLYCFRKDMDKVETFLRIVQCRSVEGSCGF
Host	Escherichia coli
Theoretical MW (kDa)	22.2
Form	Lyophilized
Preparation Method	*Escherichia coli* expression system
Endotoxin Level	< 0.1 EU/ug
Activity	The activity is determined by the ability to induce proliferation of PDF 9D11 cells. The expected ED_{50} for this effect is 0.33-0.57 ng/mL.
Storage Buffer	Lyophilized from 20 mM $NaHCO_3$, pH 8.0
Storage Instruction	Store at -20°C on dry atmosphere. After reconstitution with sterilized water, store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

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Applications

- Functional Study
- SDS-PAGE

Gene Info — GH1

Entrez GeneID	2688
Protein Accession#	P01241
Gene Name	GH1
Gene Alias	GH, GH-N, GHN, hGH-N
Gene Description	growth hormone 1
Omim ID	139250 173100 262400 262650 604271
Gene Ontology	Hyperlink
Gene Summary	The protein encoded by this gene is a member of the somatotropin/prolactin family of hormones w hich play an important role in growth control. The gene, along with four other related genes, is loca ted at the growth hormone locus on chromosome 17 where they are interspersed in the same tran scriptional orientation; an arrangement which is thought to have evolved by a series of gene duplic ations. The five genes share a remarkably high degree of sequence identity. Alternative splicing g enerates 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 pl acental 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. [provided by RefSeq
Other Designations	pituitary growth hormone

Pathway

- Cytokine-cytokine receptor interaction

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- Jak-STAT signaling pathway
- Neuroactive ligand-receptor interaction

Disease

- Adenocarcinoma
- Adenoma
- Alzheimer disease
- Birth Weight
- Brain Ischemia
- Breast cancer
- Breast Neoplasms
- Cardiovascular Diseases
- Cerebrovascular Accident
- Colonic Polyps
- Colorectal Neoplasms
- Diabetes Complications
- Diabetes Mellitus
- Dwarfism
- Edema
- Esophageal Neoplasms
- Esophagitis
- Genetic Predisposition to Disease
- Growth Disorders
- Hematologic Diseases
- Hyperplasia
- Hypertension
- Kidney Failure

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- Lymphoma
- Metabolic Syndrome X
- Metaplasia
- Neoplasms
- Obesity
- Occupational Diseases
- Osteoporosis
- Ovarian Failure
- Polycystic Ovary Syndrome
- Puberty
- Schizophrenia
- Scoliosis
- Stroke
- Testicular Neoplasms
- Thrombophilia
- Tobacco Use Disorder

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