

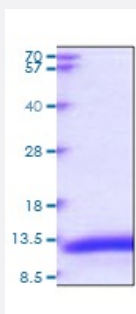
Bioactive

Proinsulin/INS (Human) Recombinant Protein

Catalog # P6961

Size 20 ug

Applications



Result of bioactivity analysis

Result of bioactivity analysis

Proinsulin/INS (Human) Recombinant Protein in a cell proliferation assay using MCF7 human breast cancer cell. The ED50 range $\leq 4\mu\text{g/mL}$.

Specification

Product Description	Human Proinsulin/INS (NP_000198, 25 a.a. - 110 a.a.) partial recombinant protein with His tag expressed in <i>Escherichia coli</i> .
Host	Human
Theoretical MW (kDa)	11.8
Form	Liquid
Preparation Method	<i>Escherichia coli</i> expression system
Purity	> 95% by SDS-PAGE
Endotoxin Level	> 1 EU per 1ug of protein (determined by LAL method)

Activity	Measured in a cell proliferation assay using MCF7 human breast cancer cell. The ED ₅₀ range ≤ 4 ug/ml.
Quality Control Testing	3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.
Recommend Usage	SDS-PAGE The optimal working dilution should be determined by the end user.
Storage Buffer	In PBS, pH 7.4 (10% glycerol)
Storage Instruction	Stored at 2°C to 8°C for 1 week. For long term storage, aliquot and store at -20°C to -80°C. Avoid repeated freezing and thawing cycles.
Note	Result of bioactivity analysis Result of bioactivity analysis Proinsulin/INS (Human) Recombinant Protein in a cell proliferation assay using MCF7 human breast cancer cell. The ED50 range ≤ 4ug/mL.

Applications

- SDS-PAGE

Gene Info — INS

Entrez GeneID	3630
Protein Accession#	NP_000198
Gene Name	INS
Gene Alias	ILPR, IRDN
Gene Description	insulin
Omim ID	125850 176730
Gene Ontology	Hyperlink
Gene Summary	After removal of the precursor signal peptide, proinsulin is post-translationally cleaved into two chains (peptide A and peptide B) that are covalently linked via two disulfide bonds. Binding of this mature form of insulin to the insulin receptor (INSR) stimulates glucose uptake. A variety of mutant alleles with changes in the coding region have been identified. There is a read-through gene, INS-IGF2, which overlaps with this gene at the 5' region and with the IGF2 gene at the 3' region. [provided by RefSeq]

Pathway

- [Insulin signaling pathway](#)
- [Maturity onset diabetes of the young](#)
- [mTOR signaling pathway](#)
- [Prostate cancer](#)
- [Regulation of actin cytoskeleton](#)
- [Regulation of autophagy](#)
- [Type I diabetes mellitus](#)
- [Type II diabetes mellitus](#)

Disease

- [Addison Disease](#)
- [Adenomatous Polyps](#)
- [Alzheimer disease](#)
- [Amenorrhea](#)
- [Anorexia Nervosa](#)
- [Atherosclerosis](#)
- [Autoimmune Diseases](#)
- [Autoimmune polyglandular syndrome](#)
- [Bile Duct Neoplasms](#)
- [Birth Weight](#)
- [Body Weight](#)
- [Breast cancer](#)

- [Breast Neoplasms](#)
- [Bulimia](#)
- [Carcinoma](#)
- [Cardiovascular Diseases](#)
- [Celiac Disease](#)
- [Colorectal Neoplasms](#)
- [Diabetes](#)
- [Diabetes Complications](#)
- [Diabetes Mellitus](#)
- [Diabetic Nephropathies](#)
- [Disease Progression](#)
- [Disease Susceptibility](#)
- [Diseases in Twins](#)
- [Drug Toxicity](#)
- [Edema](#)
- [Gallbladder Neoplasms](#)
- [Gallstones](#)
- [Genetic Predisposition to Disease](#)
- [Hirsutism](#)
- [Hyperandrogenism](#)
- [Hypercholesterolemia](#)
- [Hyperinsulinism](#)
- [Hypertension](#)
- [Hypertriglyceridemia](#)
- [Insulin Resistance](#)
- [Kidney Failure](#)

- [Liver Neoplasms](#)
- [Metabolic Syndrome X](#)
- [Neoplasms](#)
- [Obesity](#)
- [Oligomenorrhea](#)
- [Osteoporosis](#)
- [Ovarian cancer](#)
- [Ovarian Failure](#)
- [Ovarian Neoplasms](#)
- [Pancreatic cancer](#)
- [Pancreatic Neoplasms](#)
- [Parkinson disease](#)
- [Polycystic Ovary Syndrome](#)
- [Polyendocrinopathies](#)
- [Pre-Eclampsia](#)
- [Prostate cancer](#)
- [Prostatic Neoplasms](#)
- [Puberty](#)
- [Stomach Neoplasms](#)
- [Thrombophilia](#)
- [Thyroid Diseases](#)
- [Thyroiditis](#)
- [Tobacco Use Disorder](#)
- [Weight Gain](#)