

Datasheet for ABIN7318625 IGF1 Protein



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Overview

Quantity:	100 µg
Target:	IGF1
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Biological Activity:	Active

Product Details

Purpose:	Recombinant Human IGF-1/IGF1 Protein (Active)
Sequence:	Gly49-Ala118
Characteristics:	Recombinant Human Insulin-like Growth Factor I is produced by our E.coli expression system and the target gene encoding Gly49-Ala118 is expressed.
Purity:	> 95 % as determined by reducing SDS-PAGE.
Endotoxin Level:	< 1.0 EU per µg as determined by the LAL method.
Biological Activity Comment:	Measured in a serum-free cell proliferation assay using MCF-7 human breast cancer cells. The ED50 for this effect is 14.9 ng/ml.

Target Details

Target:	IGF1
Alternative Name:	IGF-1/IGF1 (IGF1 Products)

Target Details

Background: Background: Insulin-like growth factor I (IGF1) belongs to the family of insulin-like growth factors that are structurally homologous to proinsulin. Mature IGFs are generated by proteolytic processing of inactive precursor proteins, which contains the N- and C-terminal propeptide regions. Mature human IGF-I consisting of 70 amino acids has 94 % identity with mouse IGF-I and exhibits cross-species activity. IGF-1 binds IGF-IR, IGF-IIR, and the insulin receptor and plays a key role in cell cycle progression, cell proliferation and tumor progression. IGF-1 expression is regulated by growth hormone. R3 IGF-1 is an 83 amino acid analog of IGF-1 comprising the complete human IGF-1 sequence with the substitution of an Arg (R) for the Glu(E) at position three, hence R3, and a 13 amino acid extension peptide at the N terminus. R3 IGF-1 has been produced with the purpose of increasing biological activity. R3 IGF-1 is significantly more potent than human IGF-I in vitro.

Synonym: Insulin-Like Growth Factor I, IGF-I, Mechano Growth Factor, MGF, Somatomedin-C, IGF1, IBP1

Molecular Weight: 7.6 kDa

UniProt: [P05019](#)

Pathways: [RTK Signaling](#), [Intracellular Steroid Hormone Receptor Signaling Pathway](#), [Peptide Hormone Metabolism](#), [Hormone Activity](#), [Regulation of Intracellular Steroid Hormone Receptor Signaling](#), [Regulation of Hormone Metabolic Process](#), [Regulation of Hormone Biosynthetic Process](#), [Stem Cell Maintenance](#), [Glycosaminoglycan Metabolic Process](#), [Regulation of Carbohydrate Metabolic Process](#), [Autophagy](#), [Smooth Muscle Cell Migration](#), [Activated T Cell Proliferation](#), [Positive Regulation of fat Cell Differentiation](#)

Application Details

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Please refer to the printed manual for detailed information.

Buffer: Lyophilized from a 0.2 µm filtered solution of 300 mM NaAc, pH 6.5.

Storage: 4 °C, -20 °C, -80 °C

Storage Comment: Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted

samples are stable at $< -20^{\circ}\text{C}$ for 3 months.