Recombinant Protein Technical Manual

Recombinant Human IGF/IGF1 Protein (Active)

RPES1563

Product Data:

Product SKU: RPES1563

Size: 10µg

Species: Human

Expression host: E. coli

Uniprot: P05019

Protein Information:

Molecular Mass: 7.6 kDa

AP Molecular Mass: 9 kDa

Tag:

Bio-activity: 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.

Purity: > 95 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: 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℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.

Shipping: This product is provided as lyophilized powder which is shipped with ice packs.

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

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

Application: Cell Culture

Synonyms: Insulin-Like Growth Factor I; IGF-I; Mechano Growth Factor; MGF; Somatomedin-C; IGF1; IBP1

Immunogen Information:

Sequence: Gly49-Ala118

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 binds IGF-IR, IGF-IIR, and the insulin receptor and plays a key role in cell cycle progression, cell proliferation and tumor progression. IGF expression is regulated by growth hormone. R3 IGF is an 83 amino acid analog of IGF comprising the complete human IGF 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 has been produced with the purpose of increasing biological activity. R3 IGF is significantly more potent than human IGF-I in vitro.