



# Recombinant Protein Technical Manual

**Recombinant Human IGF/IGF1 Protein (aa  
5218)(Active)**  
RPES1582

## Product Data:

**Product SKU:** RPES1582

**Size:** 10µg

**Species:** Human

**Expression host:** E. coli

**Uniprot:** P05019

## Protein Information:

**Molecular Mass:** 7.3 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 52.4 ng/ml.

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

**Endotoxin:** < 0.5 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°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C 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:** Thr52-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 protein containing N-terminal and C-terminal propeptide regions. Mature human IGF-I consisting of 70 amino acids with 94% identity with mouse IGF1 and exhibits cross-species activity. IGF1 binds IGFR, IGF-2R, and the insulin receptor and plays a key role in cell cycle progression, cell proliferation and tumor progression. IGF1 expression is regulated by growth hormone.