

## HUMAN LR3-IGF-1 PROTEIN

**Cat.#:** 12047

**Product Name:** Human LR3-IGF-1 Protein

**Size:** 10 µg, 50 µg and 100 µg

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

**Target:** LR3-IGF-1

**UNIPROT ID:** P05019

**Description:** Recombinant Human LR3 Insulin-Like Growth Factor-I is produced by our E.coli expression system and the target gene encoding Gly49-Ala118 is expressed.

**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-1 in vitro.

**Species/Host:** E.coli

**Molecular Weight:** 9.1 KDa

**Molecular Characterization:** Not available

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

**Formulation & Reconstitution:** Lyophilized from nanodisc solubilization buffer (20 mM Tris-HCl, 150 mM NaCl, pH 8.0). Normally 5% – 8% trehalose is added as protectants before lyophilization.

**Storage & Shipping:** Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.

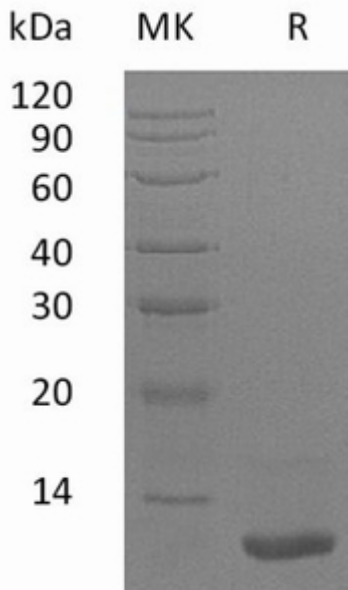


Figure 1. Greater than 95% as determined by reducing SDS-PAGE.