

## Insulin Like Growth Factor-1 Active Protein | rIGF1 active protein

Recombinant Rat Insulin Like Growth Factor-1

|                              |                       |
|------------------------------|-----------------------|
| CATALOG #<br><b>AAA38145</b> | HOST<br><b>E Coli</b> |
|------------------------------|-----------------------|

### PRODUCT SYNONYMS

Insulin Like Growth Factor-1; Recombinant Rat Insulin Like Growth Factor-1; IGF1 Rat; Insulin-Like Growth Factor 1 Rat Recombinant; Somatomedin C; IGF-I; IGFIA; IGF1; rIGF1 active protein

### PRODUCT SPECIFICATIONS

|                         |                                                                                                                                                                                                                                                                                                                                                           |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                    | E Coli                                                                                                                                                                                                                                                                                                                                                    |
| Purity/Purification     | Greater than 98.0% as determined by SDS-PAGE.                                                                                                                                                                                                                                                                                                             |
| Form/Format             | The protein was lyophilized with no additives.<br>Sterile Filtered White lyophilized (freeze-dried) powder.                                                                                                                                                                                                                                               |
| Sequence                | GPETLCGAEL VDALQFVCGP RGFYFNKPTG YGSSIRRAPQ TGIVDECCFR SCDLRRLEMY CAPLKPTKSA                                                                                                                                                                                                                                                                              |
| Sequence Length         | 143                                                                                                                                                                                                                                                                                                                                                       |
| Solubility              | It is recommended to reconstitute the lyophilized IGF1 in sterile 18M Omega -cm H2O not less than 100 ug/ml, which can then be further diluted to other aqueous solutions.                                                                                                                                                                                |
| Biological Activity     | The ED50, was calculated 2 methods: 1. Stimulation of protein synthesis in rat L6 myoblasts ED50 was found to be < 30ng/ml corresponding to a Specific Activity of 33,334IU/mg. 2. Type 1 IGF receptor binding assay ED50 was found to be <10ng/ml corresponding to a Specific Activity of 100,000IU/mg.                                                  |
| Preparation and Storage | Lyophilized IGF-1 although stable at room temperature for 3 weeks, should be stored desiccated below -18 degree C. Upon reconstitution IGF1 should be stored at 4 degree C between 2-7 days and for future use below -18 degree C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles. |

### ADDITIONAL INFORMATION

|                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
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| Related Product Information for rIGF1 active protein | <p><b>Description:</b> Insulin-Like Growth Factor I Rat Recombinant produced in E Coli is a single, non-glycosylated, polypeptide chain containing 70 amino acids and having a molecular mass of 7.7kDa. IGF-I is purified by proprietary chromatographic techniques.</p> <p><b>Introduction:</b> The somatomedins, or insulin-like growth factors (IGFs), comprise a family of peptides that play important roles in mammalian growth and development. IGF1 mediates many of the growth-promoting effects of growth hormone (GH; MIM 139250). Early studies showed that growth hormone did not directly stimulate the incorporation of sulfate into cartilage, but rather acted through a serum factor, termed 'sulfation factor,' which later became known as 'somatomedin' (Daughaday et al., 1972). Three main somatomedins have been characterized: somatomedin C (IGF1), somatomedin A (IGF2; MIM 147470), and somatomedin B (MIM 193190) (Rotwein, 1986; Rosenfeld, 2003).</p> |
| Product Categories/Family for rIGF1 active protein   | Cytokines and Growth Factors; Growth Factors; Insulin-Like Growth Factor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

### NCBI AND UNIPROT INFORMATION

|             |           |
|-------------|-----------|
| NCBI GI #   | 163659885 |
| NCBI GeneID | 24482     |

|                                  |                                                      |
|----------------------------------|------------------------------------------------------|
| NCBI Accession #                 | <a href="#">NP_001075946.2</a>                       |
| NCBI GenBank Nucleotide #        | <a href="#">NM_001082477.2</a>                       |
| UniProt Accession #              | <a href="#">P08025</a> ; <a href="#">P08024</a>      |
| Molecular Weight                 | 17,831 Da                                            |
| NCBI Official Full Name          | insulin-like growth factor I isoform a preproprotein |
| NCBI Official Synonym Full Names | insulin-like growth factor 1                         |
| NCBI Official Symbol             | Igf1                                                 |
| NCBI Protein Information         | insulin-like growth factor I; IGF-I; somatomedin     |
| UniProt Protein Name             | Insulin-like growth factor I                         |
| UniProt Gene Name                | <b>Igf1</b>                                          |
| UniProt Synonym Gene Names       | Igf-1; IGF-I                                         |
| UniProt Entry Name               | IGF1_RAT                                             |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | [contact@aaabiotech.com](mailto:contact@aaabiotech.com)  
Online datasheet: <https://stage.aaabiotech.com/e-coli-rigf1-active-protein/insulin-like-growth-factor-1/38145>