

## Recombinant Human Insulin-Like Growth Factor 2 (somatomedin A)

Cat. No. IGF2-5430H    Lot. No. (See product label)

### SPECIFICATION

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| <b>Product Overview</b>    | Recombinant humanIGF2 was expressed in E. coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Species</b>             | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Source</b>              | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Description</b>         | Human Insulin-likeGrowth Factor-II (IGF-II) is a single chain 67 amino acid polypeptide thatshares structural homology with insulin and human IGF-I. Human IGF-II iswidely distributed in many tissues throughout the body and acts on numerouscell types through the Type 1 IGF-I receptor. IGF-II also binds specificallyto the IGF-II / cation-independent mannose-6-phosphate receptor as well asthe family of six IGF binding proteins, but the physiological function ofIGF-II as a result of all these interactions has not been clearlyestablished. |
| <b>Purity</b>              | Greater than 95% (byHPLC and N-terminal sequence analysis).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Molecular Weight</b>    | 7.649kDa-homogeneity confirmed by Mass Spectrometry.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Endotoxin Level</b>     | Less than 0.1 EU/ug                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Biological Activity</b> | Type 1 IGF receptorbinding assay: ED50>20 ng/ml. Type 2 IGF receptor binding assay: ED50<70ng/ml. IGF binding protein assay: ED50<10 ng/ml. Stimulation of proteinsynthesis in rat L6 myoblasts: ED50 Less than 150 ng/ml.                                                                                                                                                                                                                                                                                                                                  |

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

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|------------------------------------|--------------------------------------------------------------------------|
| <b>State and appearance</b>        | Lyophilized whitepowder.                                                 |
| <b>N-terminal sequenceanalysis</b> | 7 residues Greaterthan 95% single sequence.                              |
| <b>Reconstitution</b>              | Refer to Protocol1000: Handling of GroPep IGF-I, IGF-II and IGF Analogs. |
| <b>Storage</b>                     | At least 2 years at2-4°C (lyophilized).                                  |
| <b>OfficialSymbol</b>              | IGF2                                                                     |

## GENE INFORMATION

|                       |                                                                                                                                                                                                                                                                                                                          |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>      | IGF2 insulin-like growth factor2 (somatomedin A) [ Homo sapiens ]                                                                                                                                                                                                                                                        |
| <b>Synonyms</b>       | IGF2; insulin-likegrowth factor 2 (somatomedin A); IGF-II; PP9974; C11orf43; FLJ22066; FLJ44734;insulin-like growth factor II;somatomedin-A; OTTHUMP00000011012; OTTHUMP00000011013; OTTHUMP00000011015;OTTHUMP00000011018; OTTHUMP00000011157; OTTHUMP00000011158;OTTHUMP00000220677; insulin-like growth factor type 2 |
| <b>Gene ID</b>        | 3481                                                                                                                                                                                                                                                                                                                     |
| <b>mRNA Refseq</b>    | NM_000612                                                                                                                                                                                                                                                                                                                |
| <b>Protein Refseq</b> | NP_000603                                                                                                                                                                                                                                                                                                                |
| <b>MIM</b>            | 147470                                                                                                                                                                                                                                                                                                                   |
| <b>UniProt ID</b>     | P01344                                                                                                                                                                                                                                                                                                                   |

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|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Chromosome Location</b>         | 11p15                                                                                                                                                                                                          |
| <b>Pathway</b>                     | Apoptosis;Diabetes pathways; Endochondral Ossification; Hedgehog Signaling Pathway;Regulation of Insulin-like Growth Factor (IGF) Activity by Insulin-likeGrowth Factor Binding Proteins (IGFBPs)              |
| <b>Function</b>                    | growthfactor activity; hormone activity; insulin receptor binding; insulin-likegrowth factor receptor binding; protein binding; protein serine/threoninekinase activator activity; receptor activator activity |
| <b>PDBrendering based on 1igl.</b> |                                                                                                                                                                                                                |

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