

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

**Cat. No.** IGF2-5431H    **Lot. No.** (See product label)

### SPECIFICATION

|                                    |                                                                                                                                                                                                                                                                                                                                                                                               |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>            | Recombinant humanIGF2 was expressed in E. coli.                                                                                                                                                                                                                                                                                                                                               |
| <b>Species</b>                     | Human                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Source</b>                      | E.coli                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Description</b>                 | The IGF-II geneencodes a single transcript which results in an 156 amino acid protein,including an 89 amino acid E-domain. ProIGF-II contains sites of O-linkedglycosylation. ProIGF-II is converted to mature IGF-II by sequential cleavageafter amino acids 104, 87 and 67. Differential glycosylation and cleavagewithin the E-domain can therefore result in multiple proIGF-II isoforms. |
| <b>Purity</b>                      | Greater than 95% (byHPLC and N-terminal sequence analysis).                                                                                                                                                                                                                                                                                                                                   |
| <b>Molecular Weight</b>            | 11.949 kDa-confirmedby Mass Spectrometry.                                                                                                                                                                                                                                                                                                                                                     |
| <b>Endotoxin Level</b>             | Less than 0.1 EU/ug                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Biological Activity</b>         | Stimulation ofprotein synthesis in rat L6 myoblasts.                                                                                                                                                                                                                                                                                                                                          |
| <b>State and appearance</b>        | Lyophilized whitepowder.                                                                                                                                                                                                                                                                                                                                                                      |
| <b>N-terminal sequenceanalysis</b> | 5 residues Greaterthan 95% single sequence.                                                                                                                                                                                                                                                                                                                                                   |

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|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <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                                                                                                                                                                                                                                                                                                                     |
| <b>GENE INFORMATION</b>    |                                                                                                                                                                                                                                                                                                                          |
| <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                                                                                                                                                                                                                                                                                                                   |
| <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                                                                                                                                                         |

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Factor Binding Proteins (IGFBPs)

**Function**

growthfactor activity; hormone activity; insulin receptor binding; insulin-likegrowth factor receptor binding; protein binding; protein serine/threoninekinase activator activity; receptor activator activity

**PDBrendering based on 1igl.**

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