

## IGF2

### Recombinant Human IGF-II Receptor Grade

<b>Catalog No.</b>	FU020 FU100 FM001	<b>Quantity:</b>	20 µg 100 µg 1.0 mg
<b>Alternate Names:</b>	IGF-2, Insulin-like growth factor II, Somatomedin A		
<b>Description:</b>	Human Insulin-like Growth Factor-II (IGF-II) is a single chain 67 amino acid polypeptide that shares structural homology with insulin and human IGF-I. IGF-II plays a critical role in embryonic and foetal development via autocrine, paracrine and endocrine mechanisms. It is a mitogen and also has effects on cell migration and differentiation. IGF-II binds to the type I IGF receptor and the IGF-II/cation-independent mannose-6-phosphate receptor. Its actions are probably mediated through inducing signal transduction via one or both of these receptors. IGF-II also binds to each of the six IGF binding proteins (IGFBPs). This binding also regulates the biological function of IGF-II. IGF-II is highly conserved across species which suggests an important role for the peptide. Human IGF-II is present in high concentrations in normal adult human serum, although the function of this is unknown. IGF-II is also implicated in the pathophysiology of cancer, diabetes and obesity.		
<b>UniProt ID:</b>	P01344		
<b>Gene ID:</b>	3481		
<b>Source:</b>	Expressed in <i>E.coli</i>		
<b>Molecular Weight:</b>	7469 Da		
<b>Purity:</b>	> 95% by HPLC analysis		
<b>Endotoxin Level:</b>	< 0.1 EU/µg.		
<b>State/Appearance:</b>	Lyophilized white powder dried from 0.1 M acetic acid and stored under nitrogen at a slight vacuum.		
<b>Biological Activity:</b>	Proliferation of Chinese hamster ovary (CHO) cells (ED <sub>50</sub> < 150 ng/ml) IGF type 1 receptor binding assay (ED <sub>50</sub> < 20 ng/ml) IGF type 2 receptor binding assay (ED <sub>50</sub> < 70 ng/ml) IGF binding protein assay (ED <sub>50</sub> < 10 ng/ml)		
<b>Amino Acid Sequence:</b>	Confirmed N-terminal 5 residues		
<b>Reconstitution:</b>	See Protocol 1000, Handling of IGF-I, IGF-II and IGF analogs.		
<b>Application Notes:</b>	Protocol 3001: Iodination of IGF peptides Protocol 3002: Determination of IGF-I or IGF-II in a range of species by Radioimmunoassay (RIA) Protocol 3003 Procedure for Western Ligand blotting using iodinated IGF-I or IGF-II Protocol 3004 Procedure for Western Ligand blotting using biotinylated IGF-I or IGF-II		
<b>Storage &amp; Stability:</b>	Lyophilized protein is stable at 2-8°C for up to 1 year. <b>Avoid repeated freeze-thaw cycles.</b>		

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**Cell Sciences®**  
65 Parker Street  
Unit 11  
Newburyport, MA 01950

Toll Free: 888-769-1246  
Phone: 978-572-1070  
Fax: 978-992-0298

E-mail: [info@cellsciences.com](mailto:info@cellsciences.com)  
Website: [www.cellsciences.com](http://www.cellsciences.com)