

## [Ala<sup>31</sup>]IGF-I Recombinant Human (Receptor Grade)

<b>Catalog No:</b>	AIU020 AIU100 AIM001	<b>Quantity:</b>	20 µg 100 µg 1.0 mg
<b>Description:</b>	Human [Ala <sup>31</sup> ]Insulin-like Growth Factor-I ([Ala <sup>31</sup> ]IGF-I) is a 70 amino acid analog of human IGF-I comprising the complete human IGF-I sequence with the substitution of an Ala for Tyr at position 31 (hence [Ala <sup>31</sup> ]). Scientists have engineered this analog with the express purpose of changing biological activity. Human [Ala <sup>31</sup> ]IGF-I has normal binding affinity for acid-stripped human serum binding proteins. However compared to human IGF-I, human [Ala <sup>31</sup> ]IGF-I has reduced binding to the Type 1 IGF receptor and to the insulin receptor. Human [Ala <sup>31</sup> ]IGF-I binds to these receptors slightly more strongly than human [Leu <sup>24</sup> ]IGF-I or human [Leu <sup>60</sup> ]IGF-I.		
<b>References:</b>	Forbes, B.E. et al. (2002) Eur. J. Biochem., <b>269</b> , 961-968  Milner, S. J. et al. (1995) Biochem. J., <b>308</b> , 865-871		
<b>Source:</b>	Produced recombinantly in <i>E. coli</i> .		
<b>Purity:</b>	Greater than 95 % (by HPLC and N-terminal sequence analysis)		
<b>Molecular Weight:</b>	7.557 kDa – confirmed by Mass Spectrometry		
<b>N-terminal sequence analysis:</b>	5 residues Greater than 95 % single sequence		
<b>Biological Activity:</b>	Type 1 IGF receptor binding assay: ED <sub>50</sub> Greater than 10 ng/ml  IGF binding protein assay: ED <sub>50</sub> Less than 10 ng/ml  Stimulation of protein synthesis in rat L6 myoblasts: ED <sub>50</sub> Less than 50 ng/ml		
<b>Endotoxin:</b>	Less than 0.1 EU/ µg		
<b>State and appearance:</b>	Lyophilized white powder.  Dried from 0.1 M acetic acid and stored under dry nitrogen at a slight vacuum (-25 kPa)		
<b>Storage/Stability:</b>	At least 2 years at 2 - 4°C (lyophilized)		
<b>Reconstitution:</b>	Refer to <a href="#">Protocol 1000</a> : Handling of IGF-I, IGF-II and IGF Analogs		

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**Cell Sciences, Inc.**  
480 Neponset Street  
Building 12A  
Canton, MA 02021

Toll Free: 888 769-1246  
Phone: 781 828-0610  
Fax: 781 828-0542

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