

Insulin-like growth factor II (IGF-II) is a 7.5 kDa, 67 amino acid peptide, which is thought to mediate some of the actions of growth hormone (GH). IGF-II is synthesized as a prohormone, a polypeptide consisting of A, C, B, D and E domains. After post-translational modification, the mature IGF-II consists of the A, C, B and D domains, and is structurally homologous to IGF-I and proinsulin. Significant quantities of pro-IGF-II containing the E-peptide extension may also be secreted into the circulation.

The assay of plasma IGF-II is complicated by the presence of IGF-binding proteins, which may sequester IGF-II in the reaction mixture. Various methods have been devised to separate the IGF-II and IGF-binding proteins prior to assay. Size-exclusion gel chromatography in acid is considered to be optimal, but this procedure is not feasible for routine use. Acidification followed by ethanol or acetone precipitation of the IGF fraction gives results which are similar to acid-chromatography.

## Ansh Labs Advantage

### Direct Detection Method

Eliminates potential altering of sample matrix from size-exclusion chromatography or filtration methods

### Calibration

Calibrated to the WHO IGF-II preparation NIBSC Code 96/538 v 4.0

### Simple Procedure

Two-step sandwich assay with total 1.5 hour incubation at room temperature

Analytical measurable range of 20—1239 ng/mL

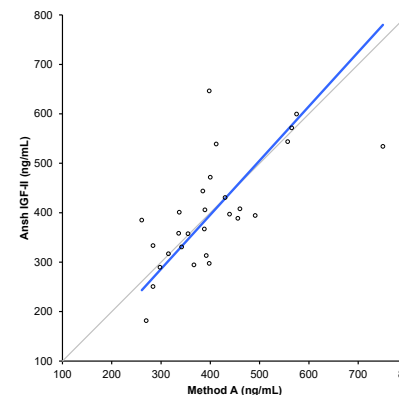
Sensitive to 1.33 ng/mL



The Difference is in the Results. **Go Ahead. Test Us!**

## Accurate

The Ansh IGF-II ELISA has been compared to a Commercial IGF-II assay (Method A) using 28 serum samples in the range of 261 ng/mL to 750 ng/mL. Passing Bablok analysis of the results yielded the following Regression: Ansh IGF-II ELISA (AL-131) = 1.10 (Method A) - 43.31 ( $r=0.72$ ;  $P<0.0001$ ).



## Specific

The monoclonal antibody pair used in the assay, as calculated by the interpolation of mean plus two standard deviations of 20 replicates of calibrator A (0 ng/mL) and calibrator B (20 ng/mL), is 1.328 ng/mL.

Cross-reactant	Concentration (ng/mL)	% Cross-reactivity
IGFBP-2	1000	ND
IGFBP-3	1000	ND
IGFBP-4	1000	ND
IGFBP-5	1000	ND
Rat IGF-I	1000	ND
IGF-I/IGFBP-3 complex	1000	ND
IGF-I	1000	ND

## Reliable

Reproducibility of the IGF-II assay was determined using two kit controls ( $n=12$ ) and two samples ( $n=18$ ) over six assay runs.

Mean Conc. (ng/mL)	Within Run		Between Run		Total	
	SD	CV	SD	CV	SD	CV
107.08	4.37	4.08	0.50	0.47	4.40	4.11
261.90	4.62	1.76	6.36	2.43	7.86	3.00
323.51	10.71	3.31	14.00	4.33	17.62	5.45
282.05	13.08	4.64	7.77	2.75	15.21	5.39

# Insulin-Like Growth Factor II

IGF-II is a useful research tool in Endocrinology studies related to

- Growth Hormone Status
- Growth Hormone Deficiency
- Cancer studies
- Nutrition
- Diabetes
- Hyperinsulinemic Hypoglycemia
- Aging studies
- Fetal growth

## Total IGF-II

Method	Quantitative two step sandwich type immunoassay
Incubation Time	Total 1.5 hour incubation at room temperature
Approximate Dynamic Range	6 points, 20 - 1239 ng/mL
Limit of Detection	1.33 ng/mL
Sample Size / Type	25 µL / Serum, Plasma
Shelf-life	24 months

## Ordering Information

Total IGF-II	96-Well ELISA	AL-131*
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\* Unless otherwise stated in our catalog or other product documentation, these kits are intended for research use only and not for *in vitro* diagnostic purposes or therapeutic uses



ISO 13485:2016

Additionally, we have proteins and many monoclonal antibodies to IGF-II and other hormones in the GH-IGF-IGFBP Axis.

Call us today or visit [AnshLabs.com](http://AnshLabs.com) to see what's new in our lab.

Ansh Labs is ISO 13485 certified for design, development, manufacturing, services and distribution of reagents/ immunoassay kits for research and *in vitro* diagnostic applications.

## Product Listing\*

TGF-Beta Superfamily  
 Activin A  
 Activin B  
 Activin AB  
 AFP  
 AMH  
 AMH, Dried Blood Spot  
 picoAMH (MenoCheck)  
 Estriol  
 Follistatin  
 Follistatin Like 3  
 FSH  
 FSH, Dried Blood Spot  
 GDF-9  
 hCG, Intact  
 Inhibin, Total  
 Inhibin A  
 Inhibin B  
 Inhibin B, Ultra-Sensitive  
 LH  
 LH, Dried Blood Spot  
 PAPP-A  
 picoPAPP-A  
 PAPP-A2

Glucagon Regulation  
 C-Peptide of Insulin  
 Glucagon  
 GLP-1  
 GLP-2  
 Glucagon  
 Major Proglucagon Fragment  
 Oxyntomodulin

Growth Factors  
 IGF-I, Free  
 IGF-I, Total  
 IGF-II  
 IGFBP-2  
 IGFBP-3, Intact  
 IGFBP-3, Total  
 IGFBP-4, Intact  
 IGFBP-4, Total  
 IGFBP-5  
 Stanniocalcin 2

Neuronal Disorders  
 MBP

Specialty Controls  
 Ansh/Check AMH Tri-Level Controls  
 Ansh/Check Inhibin B Tri-Level Controls  
 Ansh/Check Maternal Screening Bi-Level Controls

Species Specific Assays  
 Activin B - Mouse  
 AMH - Bovine, Canine, Caprine, Equine,  
 Mouse, Ovine, Porcine, Rat  
 IGF-I, Free - Rat and Mouse  
 IGF-I, Total - Mouse, Rat  
 Inhibin A - Canine, Equine, Rodent  
 Inhibin B - Canine, Equine, Rodent  
 Oxyntomodulin - Rat, Mouse  
 PAPP-A - Mouse

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