IGF-I (Total and Free)

Enzyme-Linked Immunoassay Kits

Introduction:

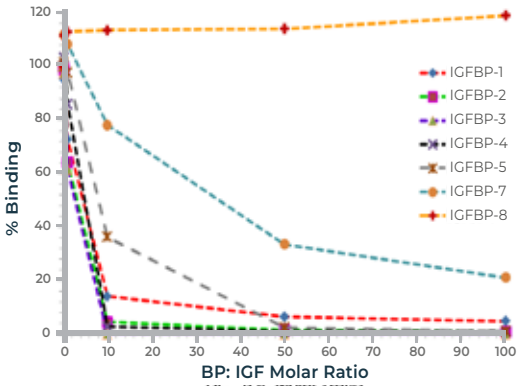
Insulin-like growth factor I (IGF-I, a.k.a. somatomedin C) is a 7.6 kDa, 70 amino acid residue peptide, which mediates the actions of growth hormone (GH). In vivo, IGF-I is secreted by the liver and several other tissues and is postulated to have mitogenic and metabolic actions at or near the sites of synthesis; i.e. paracrine effects. IGF-I also appears in the peripheral circulation where it circulates primarily in a high molecular weight tertiary complex with IGF-binding protein-3 (IGFBP-3) and acid-labile subunit (ALS). A smaller proportion of IGF-I circulates in association with other IGF- binding proteins.

Recently, there has been research interest in the measurement of serum/plasma "unbound" IGF-I which, theoretically, is the biologically active fraction. Unbound IGF-I has also been observed in saliva. It is likely that the measured unbound IGF-I fraction is a combination of the true unbound and the fraction of IGF-I that can be readily dissociated from IGFBP's under the specific assay conditions. Previous methods such as size-exclusion chromatography and filtration have been used to estimate the unbound IGF-I fraction, however they have the theoretical disadvantage of altering the sample matrix and the equilibrium between IGF-I and IGFBP's. An assay that allows detection of unbound and total IGF-I using common calibrators is needed in the field. This will allow one to directly measure the ratio of total IGF-I to dissociable fraction of IGF-I in an individual subject.

ANSH LABS ADVANTAGES

Accurate

Various concentrations of IGFBPs were spiked into IGF-I and incubated for 30 minutes to allow for the IGF-I/IGFBP complex to form.



Direct Detection Methods

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

Analytical measurable range of 0.67-43 ng/mL

Wide dynamic range reduces repeat testing of samples.

Sensitive to 0.025 ng/mL

Kit includes all reagents needed to run a 96-well plate, shipped at ambient temperatures and stored at 2-8°C

No need to buy or make additional reagents.

Long shelf-life

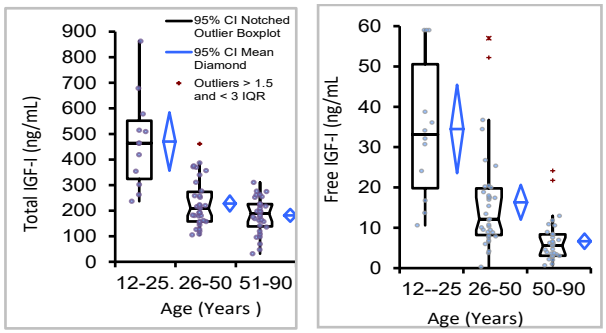
24 months from the date of manufacture; minimizing assay lot changes for long term studies.

Specific

The monoclonal antibody pair used in the each assay detects Total and Free IGF-I respectively. No significant cross-reactivity seen at the concentrations listed in the table.

Sample Name	% Cross-reactivity
IGFBP-2	ND
IGFBP-3	0.04
IGFBP-3/IGF-I Complex	0.42
IGFBP-4	ND
IGFBP-5	ND
Rat IGF-I	3.16
IGF-II	ND

Expected Values



AnshLabs®
A VION BIOSCIENCES COMPANY

IGF-I (Total and Free) Product Listing

IGF-I is a useful research tool in any IGF system related studies:

- Diabetes
- Oncology
- Nutrition studies
- Inflammatory disease
- Growth Hormone Status
- Growth Hormone Deficiency
- Aging and Longevity Studies
- Hyperinsulinemic Hypoglycemia

ELISA 96 Wells

IGF-I(Total)

Method	Quantitative 1-step sandwich type immunoassay
Incubation Time	Total 1 hour incubation at room temperature
Approximate Dynamic Range	6 points, 0.9-50 ng/mL
Sensitivity	0.025 ng/mL
Sample Size / Type	20 µL / Serum, Plasma
Shelf-life	24 months
Catalog Number	AL-121 [FDA,CE]

IGF-I(Free)

Method	Quantitative 1-step sandwich type immunoassay
Incubation Time	Total 1 hour incubation at room temperature
Approximate Dynamic Range	6 points, 0.67-43 ng/mL
Sensitivity	0.025 ng/mL
Sample Size / Type	50 µL / Serum
Shelf-life	24 months
Catalog Number	AL-122

Related Assays

PAPP-A2	96-Well ELISA	AL-109
IGF-II	96-Well ELISA	AL-131
IGFBP-3 Intact	96-Well ELISA	AL-149
IGFBP-3 Total	96-Well ELISA	AL-120
IGFBP-4 Intact	96-Well ELISA	AL-128
IGFBP-4 Total	96-Well ELISA	AL-126
IGFBP-5	96-Well ELISA	AL-127

*Unless otherwise stated here, 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.

POS.122.1224.USINTL

Reproductive Function

- Activin A [CE]
- Activin B
- Activin AB
- AFP
- AMH [CE]
- AMH, Dried Blood Spot [CE]
- AMH (PCOCheck™) [CE]
- picoAMH (MenoCheck®) [FDA, CE]
- BMP-15
- Estriol [FDA, CE]
- Follistatin
- Follistatin Like-3
- FSH
- FSH, Dried Blood Spot
- GDF-9
- GDF-9/BMP-15 Complex
- GDF-15, Total
- GDF-15, H-Specific
- Inhibin, Total
- Inhibin A [FDA, CE]
- picoInhibin A
- Inhibin A (OMQCheck™)
- Inhibin B [CE]
- Inhibin B, Ultra-Sensitive [CE]
- LH
- LH, Dried Blood Spot
- PAPP-A [CE]
- PAPP-A2 [CE]
- picoPAPP-A [CE]
- PLGF [CE]
- Prolactin [FDA, CE]
- Prolactin, Dried Blood Spot [CE]

Specialty Controls

- AnshCheck AMH Tri-Level Controls [FDA, CE]
- AnshCheck Inhibin B Tri-Level Controls
- AnshCheck Maternal Screening Bi-Level Controls [FDA, CE]

Metabolism

- C-Peptide of Insulin
- GIP, Intact
- GIP, Total
- Glicentin
- GLP-1
- GLP-2
- Glucagon [FDA, CE]
- Major Proglucagon Fragment
- Oxyntomodulin
- Proglucagon

Growth Factors

- IGF-I, Free
- IGF-I, Total [FDA, CE]
- IGF-II
- IGFBP-2
- IGFBP-3, Intact
- IGFBP-3, Total
- IGFBP-4, Intact
- IGFBP-4, Total
- IGFBP-5
- picoIL-6
- Stanniocalcin 2

Species Specific Assays

- Activin B: Mouse, Rat
- AMH: Bovine, Canine, Equine, Feline, Mouse, Ovine, Porcine, Primate, Rat
- GDF-15: Bovine
- IGF-I, Free: Mouse, Rat
- IGF-I, Total: Mouse, Rat
- IGFBP-4, Intact : Mouse, Rat
- IGFBP-4, Total: Mouse, Rat
- Inhibin A: Canine, Equine, Rodent
- Inhibin B: Canine, Equine, Mouse
- Oxyntomodulin: Mouse, Rat
- PAPP-A: Mouse

Neuronal Disorders

- MBP

**Unless stated otherwise, products are for research use only.

Customer Relations
281.404.0260, Ext. 263
sales@anshlabs.com

445 Medical Center Blvd.
Webster, Texas 77598 USA

Ansh Labs®
A VION BIOSCIENCES COMPANY

Call us today, or visit us at AnshLabs.com

Ansh Labs is ISO certified for the design, development, manufacturing, services and distribution of reagents/ immunoassay kits for research and in vitro diagnostic applications.
ISO 13485:2016

Copyright ©2024 Ansh Labs. All rights reserved.