

IGF-I (Total and Free)

Enzyme-Linked Immunoassay Kits



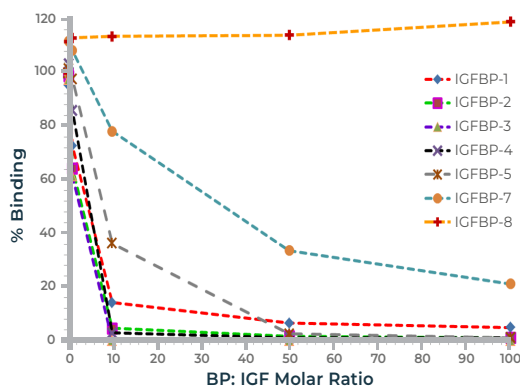
Introduction: Insulin-like growth factor I (IGF-I, a.k.a. somatomedin C) is a 7.6 kDa, 70 amino acid residue peptide, which mediates the actions of growth hormone (GH). In vivo, IGF-I is secreted by the liver and several other tissues and is postulated to have mitogenic and metabolic actions at or near 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.



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

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

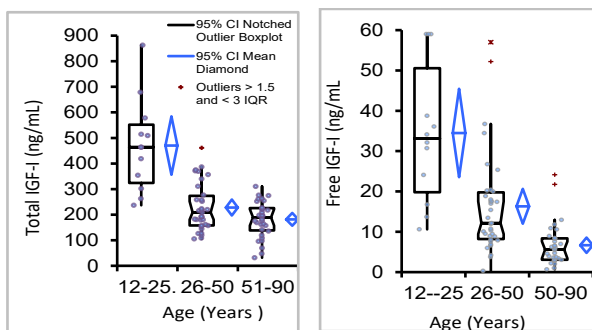
Kit includes all reagents needed to run a 96-well plate, shipped at ambient temperatures and stored at 2-8°C

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.

Expected Values



IGF-I (Total and Free)

Product Listing

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

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

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.122.0323.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
Estrilol [FDA, CE]
Follistatin
Follistatin Like-3 (FSTL-3)
FSH [FDA]
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 [FDA]
LH, Dried Blood Spot
PAPP-A2 [CE]
picoPAPP-A [CE]
PLGF [CE]
Prolactin [FDA, CE]
Prolactin, Dried Blood Spot [CE]
Testosterone

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
Glicentin
GLP-1
GLP-2
Glucagon [FDA, CE]
Major Proglucagon Fragment (MPGF)
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
picol-6
Stanniocalcin 2

Species Specific Assays

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

Neuronal Disorders

MBP

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

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ISO 13485:2016

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