

IGFBP-2

Enzyme-Linked Immunoassay Kit



Introduction: IGFBP-2 is an unglycosylated polypeptide of 31.3 kDa and is one of the six circulating proteins that bind insulin-like growth factor (IGF)-I and -II with high affinity. It is also a widely expressed protein with functions in bone and skeletal muscle development, and regulation of body growth and composition. IGFBP-2 levels in circulation are influenced under different metabolism and malignant states. Compared to normal adults, IGFBP-2 levels are elevated in hypopituitary adults suggesting regulation by growth hormone. Extreme physical exercise results in elevated serum IGFBP-2 levels in men and women.

Circulating IGFBP-2 levels are high in anorexia nervosa patients and suppressed in obesity and Type 2 Diabetes. Overexpression of IGFBP-2 protects against obesity and diabetes by inhibiting adipogenesis and modulating insulin sensitivity. In contrast to Type 2 Diabetes, IGFBP-2 levels are increased in Type 1 Diabetes suggesting regulation by insulin sensitivity.

IGFBP-2 levels are also altered in intra-uterine growth retardation (IUGR) and small for gestational age (SGA) cases. In IUGR, cord serum levels of IGFBP-2 are elevated and levels are low in pre-pubertal and pubertal SGA subjects. IGFBP-2, role in cancer progression is indicated by elevated levels in several malignancies like prostate, ovarian, breast and gastric cancer.

ANSH LABS ADVANTAGES

Accurate

Known amounts of IGFBP-2 were added to four serum samples containing different levels of endogenous IGFBP-2. The concentration of IGFBP-2 was determined before and after the addition of exogenous IGFBP-2 and the percent recovery was calculated.

Sample Name	% Cross-reactivity
Rat IGF-I	ND
IGF-I/IGFBP-3 Complex	ND
IGF-II	ND
Human IGF-II	ND
IGFBP-3	ND
IGFBP-4	ND
IGFBP-5	ND

Specific

The IGFBP-2 antibody pair detects human, canine, bovine, equine, caprine and rat species. Other related analytes at the concentration in table 2 did not show any cross-reactivity.

Specific to IGFBP-2

Does not show any cross-reactivity to IGF-I, IGF-II, IGFBP-3, IGFBP-4, or IGFBP-5.

Analytical measurable range of approximately 0.45-16 ng/mL

Wide dynamic range for detection of IGFBP-2 in a variety of physiological states.

Sensitive to 0.08 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

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

Sample	Endogenous Conc. (ng/mL)	Expected Conc. (ng/mL)	Observed Conc. (ng/mL)	% Recovery
1	1.30	3.67	3.59	98
		2.88	2.75	95
		2.25	2.28	102
2	0.80	3.43	3.51	102
		2.55	2.64	104
		1.85	1.85	100
3	1.30	8.87	8.69	98
		6.35	5.80	91
		4.33	3.89	90
4	1.80	8.63	8.06	93
		6.02	5.66	94
		3.93	3.75	95

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Product Listing

IGFBP-2 is a useful research tool for studies related to:

- Various cancers
- Anorexia nervosa
- Obesity and T2DM
- Intra-uterine growth retardation
- Bone and skeletal muscle development
- Regulation of body growth and composition

ELISA 96 Wells

Method	Quantitative 3-step sandwich type immunoassay
Incubation Time	Total 2.5 hour incubation at room temperature
Approximate Dynamic Range	6 points, 0.45-16 ng/mL
Sensitivity	0.08 ng/mL
Sample Size / Type	10 µL / Serum
Shelf-life	18 months
Catalog Number	AL-140

Related Assays

GLP-1	96-Well ELISA	AL-172
GLP-2	96-Well ELISA	AL-174
Proglucagon	96-Well ELISA	AL-1019
Glucagon	96-Well ELISA	AL-157 [FDA, CE]
C-Peptide of Insulin	96-Well ELISA	AL-151
Oxyntomodulin	96-Well ELISA	AL-139
IGF-I	96-Well ELISA	AL-121 [FDA, CE]
IGF-II	96-Well ELISA	AL-131
IGFBP-3	96-Well ELISA	AL-120
IGFBP-4	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.140.1222.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 (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
 picolL-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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