

Datasheet for ABIN3073438

IGF1 ELISA Kit

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Overview

Quantity:	96 tests
Target:	IGF1
Binding Specificity:	active
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	0.48-32.2 ng/mL
Minimum Detection Limit:	0.48 ng/mL
Application:	ELISA

Product Details

Purpose:	The Bioactive IGF-I enzyme linked immunosorbent assay (ELISA) kit provides materials for the quantitative measurement of Bioactive IGF-I in serum and other biological fluids.
Sample Type:	Plasma, Serum
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Sensitivity:	0.025 ng/mL
Components:	• IGF-I Calibrators A thru F • IGF-I Controls I & II • IGF-I Coated Microtitration strips • IGF-I Enzyme Conjugate Ready-To-Use (RTU) • TMB Chromogen Solution

Product Details

- Stopping Solution
- Wash Concentrate A

Material not included:	1. Microtitration plate reader capable of absorbance measurement at 450 nm, 405nm and 630 nm. 2. Microplate shaker. 3. Microplate washer. 4. Semi-automated/manual precision pipette to deliver 10-250 µL. 5. Vortex mixer. 6. Deionized water. 7. Disposable 12 x 75 mm culture tubes.
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Target Details

Target:	IGF1
Alternative Name:	IGF-I (IGF1 Products)
Pathways:	RTK Signaling , Intracellular Steroid Hormone Receptor Signaling Pathway , Peptide Hormone Metabolism , Hormone Activity , Regulation of Intracellular Steroid Hormone Receptor Signaling , Regulation of Hormone Metabolic Process , Regulation of Hormone Biosynthetic Process , Stem Cell Maintenance , Glycosaminoglycan Metabolic Process , Regulation of Carbohydrate Metabolic Process , Autophagy , Smooth Muscle Cell Migration , Activated T Cell Proliferation , Positive Regulation of fat Cell Differentiation

Application Details

Sample Volume:	50 µL
Assay Time:	1 h
Plate:	Pre-coated
Reagent Preparation:	1. Wash Solution: Dilute wash concentrate 25-fold with deionized water. The wash solution is stable for one month at room temperature when stored in a tightly sealed bottle. 2. Microtitration Wells: Select the number of coated wells required for the assay. The remaining unused wells should be placed in the resealable pouch with a desiccant. The pouch must be resealed to protect from moisture.
Sample Collection:	• Serum is the recommended sample type. • Sample handling, processing, and storage requirements depend on the brand of blood collection tube that you use. Please reference the manufacturer's instructions for guidance. Each laboratory should determine the acceptability of its own blood collection tubes and

serum separation products.

- Samples should be stored frozen at -20 °C or lower.
- Avoid repeated freezing and thawing of samples.
- Avoid assaying lipemic, hemolyzed or icteric samples.
- For shipping, place specimens in leak proof containers in biohazard specimen bags with appropriate specimen identification and test requisition information in the outside pocket of the biohazard specimen bag. Follow DOT and IATA requirements when shipping specimens.

Assay Procedure:

Allow all specimens and reagents to reach room temperature and mix thoroughly by gentle inversion before use. Calibrators, controls, and unknowns should be assayed in duplicate.

1. Label the microtitration strips to be used.
2. Pipette 50 µL each of the Calibrator, Controls and Unknowns to the appropriate wells.
3. Add 100 µL of the IGF-I Enzyme Conjugate Ready-To-Use (RTU) to each well using a repeater pipette.
4. Incubate the plate, shaking at a fast speed (600-800 rpm) on an orbital microplate shaker, for 60 minutes at room temperature (23 ± 2 °C).
5. Aspirate and wash each strip 5 times with Wash Solution (350 µL/per well) using an automatic microplate washer.
6. Add 100 µL of the TMB chromogen solution to each well using a repeater pipette. Avoid exposure to direct sunlight.
7. Incubate the wells, shaking at 600-800 rpm on an orbital microplate shaker, for 8-10 min at room temperature (23 ± 2 °C). NOTE: Visually monitor the color development to optimize the incubation time.
8. Add 100 µL of the Stopping solution to each well using a repeater pipett. Read the absorbance of the solution in the wells within 10 minutes, using a microplate reader set to 450 nm. NOTE: Zero calibrator should be programmed as "Blank" while reading the optical density. If instrument has a wavelength correction, set the instrument to dual wavelength measurement at 450 nm with background wavelength correction at 630 nm.

Calculation of Results:

NOTE: The results in this package insert were calculated by plotting the log optical density (OD) data on the y-axis and log IGF-I concentration on X-axis using a cubic regression curve-fit. Alternatively, log vs. log quadratic regression curve-fit can be used. Other data reduction methods may give slightly different results.

1. Calculate the mean optical density (OD) for each calibrator, Control, or Unknown.
2. Plot the log of the mean OD readings for each of the Calibrators along the y-axis versus log of the IGF-I concentrations in ng/mL along the x-axis, using a cubic regression curve-fit.
3. Determine the IGF-I concentrations of the Controls and unknowns from the calibration curve by matching their mean OD readings with the corresponding IGF-I concentrations.
4. Any sample reading higher than the highest Calibrator should be reported as such.
5. Any sample reading lower than the analytical sensitivity should be reported as such.

Assay Precision:

Reproducibility of the Bioactive IGF-I assay was determined using two kit controls and two

Application Details

serum pool samples for a total of 6 assays. At concentrations between 1.7 and 8.1ng/mL, the CV's ranged between 5.1 and 6.3%.

Restrictions: For Research Use only

Handling

Precaution of Use: For Research Use Only. Not for use in diagnostic procedures. The following precautions should be observed: a) Follow good laboratory practice. b) Use personal protective equipment. Wear lab coats and disposable gloves when handling immunoassay materials. c) Handle and dispose of all reagents and material in compliance with applicable regulations WARNING: Potential Biohazardous Material Handle all reagents and patient samples at a Biosafety Level 2, as recommended for any potentially infectious human material in the Centers for Disease Control/National Institutes of Health manual "Biosafety in Microbiological and Biomedical Laboratories," 5th Edition, 2007. WARNING: Potential Chemical Hazard Some reagents in this kit may contain Pro-Clean 400 and Sodium azide as a preservative. Pro-Clean 400 and Sodium azide in concentrated amounts are irritants to skin and mucous membranes. For further information regarding hazardous substances in the kit, please refer to the MSDS.

Storage: 4 °C