Datasheet for ABIN3073439

IGF1 ELISA Kit

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Overview

Quantity:	96 tests
Target:	IGF1
Binding Specificity:	Free Chain
Reactivity:	Mouse, Rat
Method Type:	Sandwich ELISA
Detection Range:	0.25-10.03 ng/mL
Minimum Detection Limit:	0.25 ng/mL
Application:	ELISA

Product Details

Purpose:	The Free Rat/Mouse IGF-I enzyme linked immunosorbent assay (ELISA) kit provides materials for the quantitative measurement of IGF-I in rat and mouse serum, plasma and other biological fluids.
Sample Type:	Plasma, Serum
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Sensitivity:	0.1108 ng/mL
Components:	• Free Rat/Mouse IGF-I Calibrators A thru F • Free Rat/Mouse IGF-I Controls I & II • Rat/Mouse IGF-I Coated Microtitration strips • Rat/Mouse IGF-I Ab Enzyme Conjugate Ready-To-Use (RTU)

Product Details

	• TMB Chromogen Solution • 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.

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:	10 µL
Assay Time:	1 h
Plate:	Pre-coated
Reagent Preparation:	1. Total Inhibin Calibrators A-F: Tap and reconstitute Total Inhibin Calibrators A-F with 1.0 mL deionized water. Solubilize for 10 minutes, mix well and use after reconstitution. 2. 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. 3. 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. 4. Total Inhibin Antibody-Biotin Conjugate Solution: The Total Inhibin Antibody-Biotin Conjugate Concentrate should be diluted at a ratio of 1 part conjugate to 50 parts of Inhibin B Conjugate

	Diluent, according to the number of wells used. If an entire plate is to be used pipet exactly 220 µL of the Concentrate in to 11 mL of the diluent.
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 10 µL each of the Calibrator, Controls and Unknowns to the appropriate wells. 3. Add 100 µL of the IGF-I Enzyme Conjugate-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 (350µL/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 8-12 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 pipette. Read the absorbance of the solution in the wells within 20 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.

Application Details

	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 lower than the analytical sensitivity should be used as measured concentration.
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, 200 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