Datasheet for ABIN955931

Malondialdehyde ELISA Kit

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Overview

Quantity:	96 tests
Target:	Malondialdehyde (MDA)
Reactivity:	Rat
Method Type:	Competition ELISA
Detection Range:	24.69-2000 ng/mL
Minimum Detection Limit:	24.69 ng/mL
Application:	ELISA

Product Details

Purpose:	The kit is a competitive inhibition enzyme immunoassay technique for the in vitro quantitative measurement of rat MDA in serum, plasma and other biological fluids.
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Specificity:	This assay has high sensitivity and excellent specificity for detection of rat MDA. No significant cross- reactivity or interference between rat MDA and analogues was observed. Note: Limited by current skills and knowledge, it is impossible for us - complete the cross-reactivity detection between rat MDA and all the analogues, therefore, cross reaction may still exist.
Sensitivity:	The minimum detectable dose of rat MDA is typically less than 10.55 ng/mL. The Sensitivity of this assay, or Lower Limit of Detection (LLD) was defined as the lowest protein concentration that could be differentiated from zero. It was determined the mean O.D. Value of 20 replicates of the zero calibrator plus three standard deviations.

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Product Details

Characteristics:	This assay employs the competitive inhibition enzyme immunoassay technique. A monoclonal antibody specific for rat MDA has been pre-coated onto a microplate. A competitive inhibition reaction is launched between biotin labeled rat MDA and unlabeled rat MDA (Calibrators or samples) with the pre-coated antibody specific for rat MDA. After incubation the unbound conjugate is washed off. Next, avidin conjugated to Horseradish Peroxidase (HRP) is added to each microplate well and incubated. The amount of bound HRP conjugate is reverse proportional to the concentration of MDA in the sample. After addition of the substrate solution, the intensity of color developed is reverse proportional to the concentration of MDA in the sample.
Components:	Pre-coated, ready to use 96-well strip plate (1x) Calibrator (lyophilized) (2x) Calibrator Diluent (1 x 20 mL) Detection Reagent A (1 x 120 µL) Detection Reagent B (1 x 120 µL) Assay Diluent A (2X concentrate) (1 x 6 mL) Assay Diluent B (2X concentrate) (1 x 6 mL) TMB Substrate (1 x 9 mL) Stop Solution (1 x 6 mL) Wash Buffer (30X concentrate) (1 x 20 mL) Plate sealer for 96 wells (4x).
Material not included:	1. Microplate reader with 450 +/- 10 nm filter. 2. Precision single and multi-channel pipettes and disposable tips. 3. Eppendorf Tubes for diluting samples. 4. De-ionized or distilled water. 5. Absorbent paper for blotting the microtiter plate. 6. Container for Wash Solution.

Target Details

Target:	Malondialdehyde (MDA)
Alternative Name:	Malondialdehyde / MDA (MDA Products)
Target Type:	Chemical

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Application Details

Comment:	The calibration curve concentrations used for the ELISA's were 2, 000 ng/mL, 666.67 ng/mL, 222.22 ng/mL, 74.07 ng/mL, 24.69 ng/mL.
Plate:	Pre-coated
Calculation of Results:	This assay employs the competitive inhibition enzyme immunoassay technique, so there is an inverse correlation between MDA concentration in the sample and the assay signal intensity. Low levels of MDA result in a high O.D. value, while high concentration of MDA results in a low signal. Average the duplicate readings for each calibrator, control, and samples. Create a calibration curve on log-log graph paper, with MDA concentration on the y-axis and absorbance on the x-axis. Draw the best fit straight line through the calibrator points and it can be determined by regression analysis. Using some plot software is also recommended. If samples have been diluted, the concentration read from the calibration curve must be multiplied by the dilution factor.
Restrictions:	For Research Use only

Handling

Storage:	-20 °C
Storage Comment:	All the reagents should be kept according to the labels on vials. The Calibrator, Detection Reagent A, Detection Reagent B and the 96-well strip plate should be stored at -20° C upon being received. The unused strips should be kept in a sealed bag with the desiccant provided to minimize exposure to damp air. Opened test kits will remain stable until the expiration date shown, provided it is stored as prescribed above.
Expiry Date:	The expiry date is stated on the label.