Datasheet for ABIN3073446

MBP ELISA Kit

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Overview

Quantity:	96 tests
Target:	MBP
Reactivity:	Human
Method Type:	Sandwich ELISA
Detection Range:	0.35-10.5 ng/mL
Minimum Detection Limit:	0.35 ng/mL
Application:	ELISA

Product Details

Purpose:	The myelin basic protein (MBP) enzyme linked immunuosorbent assay (ELISA) kit provides materials for the quantitative measurement of MBP in cerebrospinal fluid. This kit is intended for research use only and is not for use in diagnostic or therapeutic procedures.
Sample Type:	Cerebrospinal Fluid
Analytical Method:	Quantitative
Detection Method:	Colorimetric
Sensitivity:	0.093 ng/mL
Components:	• MBP Calibrator A-F (Lyophilized) • MBP Controls I &II (Lyophilized) • Anti-MBP Antibody Coated Microtitration Strips • MBP Biotin Conjugate Concentrate: • MBP Conjugate Diluent • MBP Streptavidin-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 orbital shaker. 3. Microplate washer. 4. Semi-automated/manual precision pipette to deliver 10-250 µL. 5. Vortex mixer. 6. Deionized water.

Target Details

Target:	MBP
Abstract:	MBP Products

Application Details

Sample Volume:	100 µL
Assay Time:	2.5 h
Plate:	Pre-coated
Reagent Preparation:	1. MBP Calibrator A-F and MBP Controls I & II: Tap and reconstitute MBP Calibrator A-F and MBP Controls I & II each with 1 mL deionized water. Mix well, and use immediately after reconstitution. 2. Wash Solution: Prepare Wash Solution by diluting Wash Concentrate A 25-fold with deionized water. The Wash Solution is stable for one (1) month at room temperature when stored in a tightly sealed bottle. 3. MBP Antibody-Biotin Conjugate Solution: The MBP Antibody- Biotin Conjugate Concentrate should be diluted at a ratio of 1 part conjugate to 50 parts of MBP Conjugate Diluent, according to the number of wells used. If an entire plate is to be used pipet exactly 220 µL of the Concentrate into 11 mL of the buffer. 4. Microtitration Wells: Select the number of coated wells required for the assay. The remaining unused wells should be placed in the re-sealable pouch with a desiccant. The pouch must be resealed to protect from moisture.
Sample Collection:	• Cerebrospinal fluid is the recommended sample type. • Avoid assaying lipemic, hemolyzed or icteric samples. • Each laboratory should determine the acceptability of its own CSF collection, shipping, and storage methods.

- Avoid repeated freezing and thawing of samples. Thaw samples no more than 3 times.

Assay Procedure:

Allow all samples and reagents to reach room temperature. Mix reagents thoroughly by gentle inversion before use. Calibrators, controls and samples should be assayed in duplicate. NOTE: If the concentration of MBP in the sample is greater than the highest calibrator, dilute appropriately using MBP in spinal fluid with negligible MBP concentration or Calibrator A.

1. Mark the microtitration strips to be used.
2. Pipet 100 µL of the calibrators, controls and samples to the appropriate
3. Incubate the wells, shaking at 600-800 rpm on an orbital microplate shaker, for 1 hour at room temperature (23 ± 2 °C).
4. Prepare the Antibody-Biotin Conjugate Solution as described under the "Preparation of Reagents" section of this package insert.
5. Aspirate and wash each well 5 times with the wash solution (350 µL/per well) using an automatic microplate washer.
6. Add 100 µL of the Antibody-Biotin Conjugate Solution to each well using a repeater pipette.
7. Incubate the wells, shaking at 600-800 rpm on an orbital microplate shaker, for 1 hour at room temperature (23 ± 2 °C).
8. Aspirate and wash each well 5 times with the wash solution (350 µL/per well) using an automatic microplate washer.
9. Add 100 µL of the Streptavidin-Enzyme Conjugate-RTU to each well using a repeater pipette.
10. Incubate the plate, shaking at a fast speed (600-800 rpm) on an orbital microplate shaker, for 30 minutes at room temperature (23 ± 2 °C).
11. Aspirate and wash each strip 5 times with the Wash Solution (350 µL/per well) using an automatic microplate washer.
12. Add 100 µL of the TMB chromogen solution to each well using a repeater pipette. Avoid exposure to direct sunlight.
13. 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.
14. 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 MBP 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. Optimum results can be obtained at incubation temperature of (23 ± 2 °C).
2. Calculate the mean optical density (OD) for each calibrator, Control, or Unknown.
3. Plot the log of the mean OD readings for each of the Calibrators along the y-axis versus log of

Application Details

	the MBP concentrations in ng/mL along the x-axis, using a cubic regression curve-fit. 4. Determine the MBP concentrations of the Controls and Unknowns from the calibration curve by matching their mean OD readings with the corresponding MBP concentrations. 5. Any sample reading higher than the highest Calibrator should be appropriately diluted with the 0 ng/mL (Calibrator A) and re-assayed. 6. Any sample reading lower than the analytical sensitivity should be reported as such. 7. Multiply the value by a dilution factor, if required.
Assay Precision:	Reproducibility of the MBP assay was determined using three CSF pools for a total of 6 assays. At concentrations between 0.6 and 2.0ng/mL, the CV's ranged between 2.5 and 6.8%.
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 This reagent may contain some human source material (e.g. serum) or materials used in conjunction with human source materials. 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 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