abcam

Product datasheet

Human Monoamine Oxidase B ELISA Kit (MAOB) ELISA profiling Kit ab157393

5 Images

Overview

Product name Human Monoamine Oxidase B ELISA Kit (MAOB) ELISA profiling Kit

Detection method Colorimetric

Precision

Intra-assay

Sample	n	Mean	SD	CV%
Hela Lysate	3			= 2.95%

Inter-assay

Sample	n	Mean	SD	CV%
Hela Lysate	3			= 7.25%

Sample type Cell Lysate, Tissue Lysate

Assay type Sandwich (qualitative)

Sensitivity > 0.012 µg/ml

Assay duration Multiple steps standard assay

Species reactivity
Reacts with: Human
Does not react with: Mouse, Rat

Product overview

Abcam's Monoamine Oxidase Type B (MAOB) Human ELISA (Enzyme-Linked Immunosorbent Assay) kit is designed for the accurate qualitative measurement of MAOB protein in human cell and tissue lysates.

The assay employs an antibody specific to MAOB protein coated onto well plate strips. Controls and samples are pipetted into the wells and MAOB present in the sample is bound to the wells by the immobilized antibody. The wells are washed and an anti-MAOB detector antibody is added. After washing away unbound detector antibody, HRP-conjugated label specific for the detector antibody is pipetted into the wells. The wells are again washed, a TMB substrate solution is added to the wells and blue color develops in proportion to the amount of MAOB bound to the plate well. The developing blue color is measured at 600 nm. Optionally the reaction can be stopped by adding hydrochloric acid which changes the color from blue to yellow and the intensity can be measured at 450 nm.

Notes

Monoamine Oxidase Type B (MAOB, Amine oxidase [flavin-containing] B, P27338) is a 58 kDa enzyme that belongs to the flavin monoamine oxidase family. Two subtypes of Monoamine Oxidase have been identified: MAO-A and MAO-B. MAOB is an enzyme located in the mitochondrial outer membrane. It catalyzes the oxidative deamination of biogenic and xenobiotic amines and has important functions in the metabolism of neuroactive and vasoactive amines in the central nervous system and peripheral tissues. MAOB preferentially degrades benzylamine, phenylethylamine, and dopamine (DA), while MAOA prefers to metabolize norepinephrine (NE), serotonin (5-HT), and dopamine (DA).

The differences between the substrate selectivity of the two enzymes are utilized clinically when treating specific disorders: MAOA inhibitors have been used in the treatment of depression, and MAOB inhibitors are used in the treatment of Parkinson's disease.

Tested applications **Suitable for:** Sandwich ELISA

Platform Microplate

Properties

Storage instructions Store at +4°C. Please refer to protocols.

Components	1 x 96 tests
10X Blocking Buffer	1 x 6ml
10X HRP Label	1 x 1ml
10X MAOB Detector Antibody	1 x 1ml
20X Buffer	1 x 20ml
Extraction Buffer	1 x 15ml
HLH Lysate Control	1 x 200µg
HRP Development Solution	1 x 12ml
MAOB Microplate	1 unit

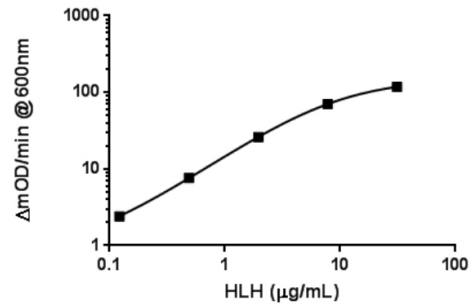
Applications

Our Abpromise guarantee covers the use of **ab157393** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

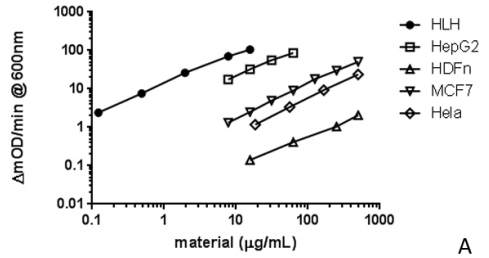
Application	Abreviews	Notes
Sandwich ELISA		Use at an assay dependent concentration.

Images



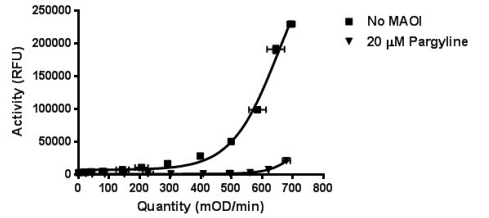
Standard Curve using ab157393

Example standard curve and raw data for ab157393. A dilution series of HLH lysates (standard sample) in the working range of the assay



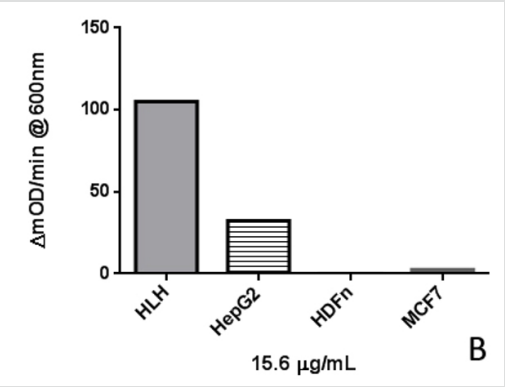
ab157393 showing detection of MOAB in a variety of cell lines

Sample experiment showing MAOB levels in HepG2 cell lysates, HDFn cell lysates, MCF7 cell lysates, HeLa cell lysates, and human liver homogenate (HLH), which is shown as a standard control sample. Cell lysates at varying concentrations within the working range of the assay were analyzed.



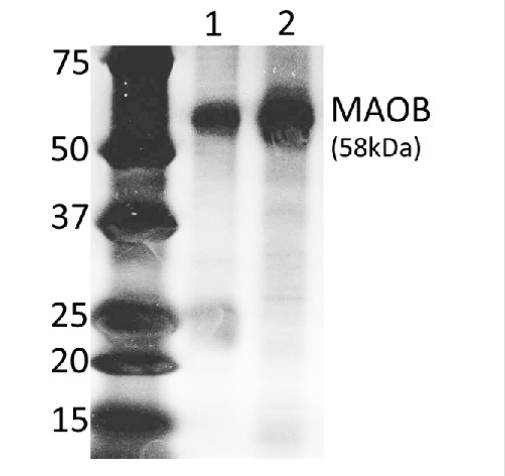
MOAB antibody Specificity

The specificity of the MAOB Capture Antibody used in this ELISA kit was demonstrated by MAOB activity assay using ab109912 Monoamine oxidase B (MAOB) Specific Activity Assay Kit with MAOB specific inhibitor, Pargyline, to show the isozyme specificity. The Antibody also immunoprecipitated MAOB protein from multiple samples, the immunocaptured target has been confirmed by Mass spectrometric data.



ab157393 showing detection of MAOB levels in a variety of cell lines

Sample experiment showing MAOB levels in HepG2 cell lysates, HDFn cell lysates, MCF7 cell lysates, HeLa cell lysates, and human liver homogenate (HLH), which is shown as a standard control sample. Cell lysates at varying concentrations within the working range of the assay were analyzed. The protein expression level in different samples were demonstrated relatively to HLH standard sample.



Specifity of the Detector Antibody

The MAOB Detector Antibody used in the ELISA kit immunocaptures MAOB from HepG2 Cell Lysate (lane 1) and Human Liver Homogenate (lane 2). Target has been confirmed by Mass Spectometric data.

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