abcam

Product datasheet

Monoamine oxidase B Activity Assay Kit ((MAOB Assay) ab109912

1 References 3 Images

Overview

Product name	Monoamine oxidase B Activity Assay Kit ((MAOB Assay)
Detection method	Colorimetric
Sample type	Cell culture extracts
Assay type	Enzyme activity
Species reactivity	**Reacts with:** Human
Product overview	ab109912 (MS747) is a novel assay that uses a high affinity monoclonal capture antibody to selectively isolate MAOB from all other peroxidases and oxidases (including MAOA) in a tissue or cultured cell sample. After isolation and subsequent measurement of the enzyme's functional activity, the quantity of isolated MAOB is measured in the same well by adding a second monoclonal detector antibody, which is quantified using a colorimetric label (HRP). Both reactions take place in time-dependent manners proportional to the amount of enzyme captured in each well. By combining activity and quantity measurements, the enzyme's relative specific activity can be determined. Specific activity is useful for measuring up or down regulation of activity by site-specific modification or damage, and in response to specific inhibitors.
Notes	Store Fluorophore and benzylamine at -80°C. Store all other components store at 4°C.
Platform	Microplate reader

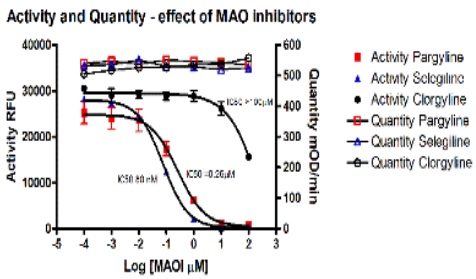
Properties

Storage instructions	Please refer to protocols.

Components	1 x 96 tests
100X Benzylamine Substrate	1 x 0.25ml
100X Detector Antibody	1 x 0.125ml
100X HRP Label	1 x 0.125ml
10X Blocking Solution	1 x 10ml

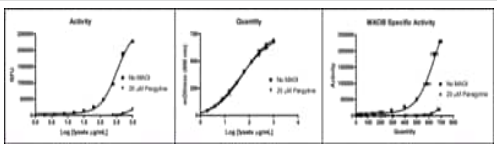
Components	1 x 96 tests
12-channel reagent reservoirs	1 unit
20X Wash Buffer	1 x 25ml
500X Fluorophore	1 x 50µl
500X Peroxidase	1 x 50µl
96-well Microplate (12 strips)	1 unit
Extraction Buffer (ab260490)	1 x 15ml
HRP Development Solution	1 x 12ml

Images



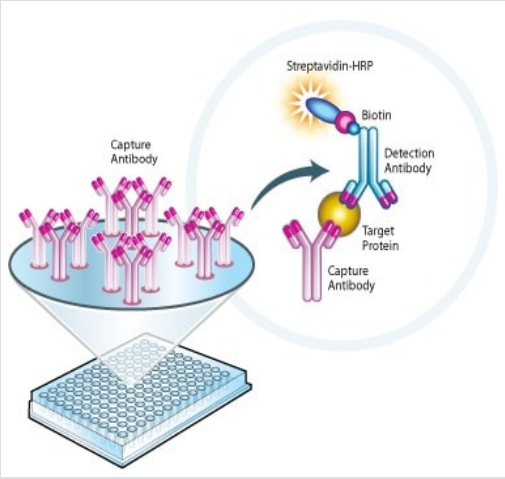
- Monoamine oxidase B (MAOB) Specific Activity Assay Kit (ab109912)

Figure 2. MAOB is selectively inhibited by selegiline and pargyline, but not clorgyline. In this example, raw data was exported to Graph Pad Prism for 4-parameter fit analysis and IC50 determination.



- Monoamine oxidase B (MAOB) Specific Activity Assay Kit (ab109912)

Figure 1. With a HepG2 cell lysate MAOB activity was clearly measurable in the 16-1000 µg/ mL range and quantity in the range 1-1000 µg/mL. The MAOB specific inhibitor pargyline inhibited activity 90% while not affecting quantity.



Sandwich ELISA - Monoamine oxidase B (MAOB) Specific Activity Assay Kit (ab109912)

Abcam's protein quantity microplate assays use the well-established sandwich ELISA format, whereby capture and detector antibodies are used to immobilize and then quantify a target protein or enzyme. All of our microplate assays utilize our highly-validated immunocapture antibodies, which are able to capture large, multi-subunit enzyme complexes in their fully intact state. Capture antibodies are pre-coated in the wells of premium Nunc MaxiSorp™ modular microplates, which can be broken into 8-well strips. After the target has been immobilized in the well, a second monoclonal antibody, against a different epitope on the target, is added to the well. This detector antibody is either directly labeled with biotin, or a biotin-labeled goat anti-mouse secondary is added. Substrate plus HRP or AP conjugated to streptavidin provide a colorimetric signal that is readable by any plate readers capable of standard ELISA absorbance measurements.

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