

Monoamine Oxidase Assay Kit | Maa assay kit

OxiSelect Monoamine Oxidase Assay Kit (Colorimetric)

CATALOG #
AAA44634

PRODUCT SYNONYMS

Monoamine Oxidase; OxiSelect Monoamine Oxidase Assay Kit (Colorimetric); Maa assay kit

PRODUCT SPECIFICATIONS

Sequence Length	526
Preparation and Storage	Upon receipt, aliquot and store the 200X Colorimetric Probe, HRP, 100X Tyramine, 100X Benzylamine, MAO-A Inhibitor, and MAO-B Inhibitor at -20 degree C Avoid multiple freeze/thaw cycles Store the remaining kit components at 4 degree C The Colorimetric Probe is light sensitive, must be stored accordingly.

IMAGES

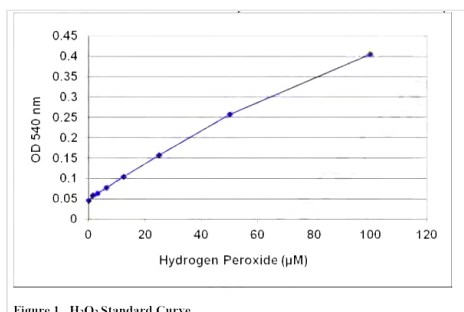


Figure 1. H₂O₂ Standard Curve.

Standard Curve (Sample)

ADDITIONAL INFORMATION

Related Product Information for Maa assay kit	Background: Monoamine Oxidases (MAO) are a collection of flavin adenine dinucleotide oxidoreductase enzymes found in the outer mitochondrial membrane. MAOs catalyze the oxidative deamination of a variety of biogenic and xenobiotic amines. MAOs include MAO-A and MAO-B, which are two isoforms of the enzyme in mammals that have been distinguished based on localization, inhibitor, and substrate specificity. Both MAO-A and MAO-B are omnipresent throughout brain, liver, and other tissues. MAO-A is predominantly found in the liver, intestine, brain, and placenta, whereas MAO-B is found in the liver, brain, and platelets. MAOs primary function is to regulate neurotransmitters such as dopamine, noradrenaline, or serotonin. Dysfunction of MAO enzymes has been associated with many neurological disorders such as depression, drug abuse, migraines, schizophrenia, Attention Deficit Disorder (ADD), Parkinson's disease, Alzheimer's disease, as well as other disorders. OxiSelect™ Monoamine Oxidase Assay Kit is a simple HTS-compatible assay for measuring amine oxidase activity. The assay can detect both MAO activity and semicarbazidesensitive amine oxidases (SSAO). In order to discriminate between MAO-A and MAO-B, the MAO-A inhibitor Clorgyline and MAO-B inhibitor Pargyline are included. In addition, two substrates, Tyramine, and Benzylamine Hydrochloride, are included. Tyramine will react with MAO-A, MAO-B, and SSAO, while Benzylamine will react with MAO-B and SSAO. The two amine oxidase substrates are interchangeable in the assay, and coupled with the provided MAO inhibitors, can be used to determine MAO activity. Applications for the kit include measuring amine oxidase in tissues, blood samples, and screening for amine oxidase inhibitors or substrates. The kit has a detection sensitivity limit of 0.05 U/L. Each kit provides sufficient reagents to perform up to 96 assays, including standard curve and unknown samples. Principle of the Assay: The OxiSelect™ Monoamine Oxidase Assay Kit is a simple and sensitive quantitative colorimetric assay for measuring amine oxidase activity in biological samples. The assay can be utilized for both end point and kinetic measurements of Monoamine Oxidase (MAO) activity, as well as semicarbazidesensitive amine oxidase (SSAO). Monoamine Oxidase reacts with its substrate and generates hydrogen peroxide (H₂O₂). In the presence of HRP, the Colorimetric Probe reacts with the H₂O₂ to produce a red/pink colored product. This product can be easily read by a microplate reader in the 540- 570 nm range. Absorbance values are proportional to the amine oxidase levels within the samples. Unknown samples are determined by comparison with a hydrogen peroxide standard curve. Clorgyline, a specific inhibitor of MAO-A, and Pargyline, a specific inhibitor of MAO-B, are included in the kit to differentiate between the two enzymes. The assay is simple, sensitive, and adaptable to high throughput testing.
Product Categories/Family for Maa assay kit	Oxidative Stress/Damage; Oxidase/Peroxidase Activity Assays; Monoamine Oxidase Assay Kit (Colorimetric)

NCBI AND UNIPROT INFORMATION

NCBI GI #	220810
NCBI GeneID	29253
Molecular Weight	59,508 Da
NCBI Official Full Name	monoamine oxidase, partial
NCBI Official Synonym Full Names	monoamine oxidase A
NCBI Official Symbol	Maa
NCBI Official Synonym Symbols	Mao
NCBI Protein Information	amine oxidase [flavin-containing] A
UniProt Protein Name	Amine oxidase [flavin-containing] A
UniProt Gene Name	Maa
UniProt Synonym Gene Names	MAO-A
UniProt Entry Name	AOFA_RAT

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.