

Human Monoamine Oxidase B (MAO-B) SUPERSOMES™

Catalog Number.....456284

Storage Conditions..STORE AT -80°C

Lot Number.....2407221

Date Released2024 August

Expiration Date2034 July

Package Contents.....0.5 ml

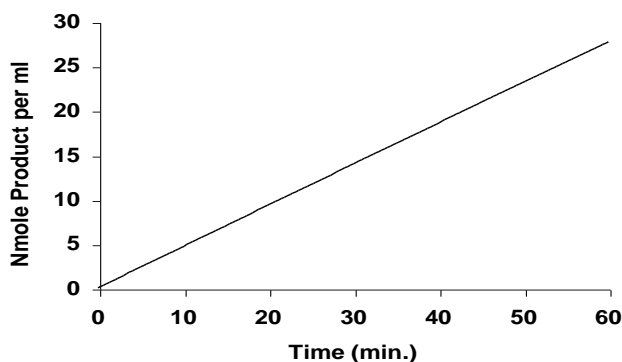
Protein Content.....5.0 mg/ml in 100 mM potassium phosphate (pH 7.4),
0.25 M Sucrose, 5% Glycerol, 0.1 mM EDTA

Kynuramine Deamination Activity.....12 nmole/(min x mg protein)

This activity is catalyzed by MAO-B, which is expressed from human MAO-B cDNA using a baculovirus expression system. Baculovirus infected insect cells (BTI-TN-5B1-4) were used to prepare these membranes. A membrane preparation using wild type virus (Catalog No. 456280) should be used as a control for native activities.

ASSAY METHOD: A 0.2 ml reaction mixture containing 0.002 mg protein and 0.25 mM kynuramine in 100 mM potassium phosphate (pH 7.4) was incubated at 37°C for 20 minutes. After incubation, the reaction was stopped by the addition of 75 μ l of 2 N NaOH, followed by the addition of 25 μ l of 70% perchloric. The sample was centrifuged (10,000 x g) for 3 minutes. 50 μ l of the supernatant was injected into a 4.6 x 250 mm 5 μ C18 HPLC column and separated at 45°C using a linear gradient. Initial HPLC conditions were 80% of a 10% methanol solution (mobile phase A), 10% of 100% methanol (mobile phase B) and 10% of a solution consisting of 30% acetonitrile and 1 mM perchloric acid (mobile phase C). Elution of metabolites was carried out by an increase in mobile phase B (100% methanol) to 63% over 10 min, while mobile phase C remained constant at 10% during the course of the HPLC run. The HPLC flow rate was 1 ml per minute. The product was detected by its absorbance at 320 nm and quantitated by comparing to the absorbance of a standard curve for 4-hydroxyquinoline (4-HQ), the product of kynuramine deamination. A 96-well plate method can also be used to assay MAO A and MAO B. This method is available from Corning upon inquiry.

Time Course of Product Formation



ADVICE:

- Thaw rapidly in a 37°C water bath. Keep on ice until use.
- Aliquot to minimize freeze-thawing cycles. Less than 10% of the catalytic activity is lost after 7 freeze thaw cycles.
- Metabolite production with kynuramine is approximately linear for 60 minutes (see graph above). The above graph was generated using a final MAO-B protein concentration of 0.01 mg/ml. Other substrates Sept not exhibit similar linearity with respect to incubation time.

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INSECT CELL MICROSOMES

HAZARD WARNING:

The product was produced using baculovirus (*Autographa californica*) infected insect cells (BTI-TN-5B1-4). This virus is not known to be pathogenic to humans or other mammals.

SAFETY INFORMATION:

Safety assessment indicates this product is not hazardous, therefore no SDS (Safety Data Sheet) is provided. Use standard laboratory practices for the handling and disposal of Biosafety Level 1 materials.

Alexa Silies

Quality Assurance

08/27/2024

Date

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