



## Acetylcholintransferase (ChAT) activity kit

### Product Information

#### Product Overview

Choline acetyltransferase (ChAT, EC 2.3.1.6) is the enzyme responsible for the synthesis of acetylcholine (ACh), regulating the metabolism of ACh. ACh is the primary excitatory neurotransmitter that regulates the movement of esophageal smooth muscle. Under the action of ChAT, acetyl-CoA and choline react to produce acetylcholine and coenzyme A. The product reacts with a chromogenic agent to yield an absorption peak at 412 nm, which is used to calculate the activity of ChAT.

The enzyme-catalyzed reaction:  $\text{acetyl-CoA} + \text{choline} = \text{CoA} + \text{O-acetylcholine}$

#### Size

48 Samples

#### Storage

-20°C

#### Shipping

Ice pack

#### Kit Components

Extraction Solution: Liquid, 60mL × 1 bottle, stored at 4°C.

Reagent 1: Powder, mg × 1 vial, stored at -20°C.

Before use, shake or centrifuge to bring the powder to the bottom, then add 1.2mL of distilled water to dissolve and prepare for use, which can be aliquoted and frozen at -20°C.

Reagent 2: Powder, mg × 1 vial, stored at 4°C.

Before use, shake or centrifuge to bring the powder to the bottom, then add 2.3mL of distilled water to dissolve and prepare for use, stored at -20°C.

Reagent 3: Liquid, 12mL × 1 bottle, stored at 4°C.

Reagent 4: Liquid, 4mL × 1 bottle, stored at 4°C.

If solidified, it can be warmed in a 25°C water bath until completely dissolved before use.

Standard: Powder, 1mg × 1 vial, stored at 4°C. This reagent is used if a new calibration curve needs



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Assay Kit

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to be prepared.

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### Materials Required but Not Supplied

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Microplate reader, benchtop centrifuge, adjustable pipette, 96-well plate, mortar, ice, and distilled water

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