

Ammonia/Ammonium Assay Kit

Product Information

Cat

Kit-2475

Cat.No.

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Product Overview

Ammonia (NH₃) or its ion form ammonium (NH₄⁺) is an important source of nitrogen for living systems. It is synthesized through amino acid metabolism and is toxic when present at high concentrations. In the liver, ammonia is converted to urea through the urea cycle. Elevated levels of ammonia in the blood (hyperammonemia) have been found in liver dysfunction (cirrhosis), while hypoammonemia has been associated with defects in the urea cycle enzymes (e.g. ornithine transcarbamylase). Simple, direct and automation-ready procedures for measuring NH₃ are popular in research and drug discovery. Ammonia assay is designed to directly measure NH₃ and NH₄⁺. In this assay, NADH is converted to NAD⁺ in the presence of NH₃, ketoglutarate and glutamate dehydrogenase. The decrease in optical density at 340 nm or fluorescence intensity at $\lambda_{ex/em} = 360/450$ nm is directly proportionate to the NH₃ concentration in the sample.

Storage

-20°C

Shipping

On Ice

Size

100 tests

Detection method OD340nm, or FL360/450nm

Compatible Sample Types

Serum, plasma, urine, saliva, cell culture etc

Features & Benefits

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High sensitivity and wide linear range. Use 20 μ L sample. Linear detection range 24 to 1000 μ M ammonia.

Homogeneous and simple procedure. Simple "mix-and-measure" procedure allows reliable quantitation of ammonia within 30 minutes.

Assay time

30 min

Sensitivity

24 μ M
