

Urease Assay Kit

Product Information

Cat.No.

Kit-0838

Product Overview

Urease Assay Kit is a quantitative determination of urease activity.

Description

UREASE (Amidohydrolase, EC 3.5.1.5) is an enzyme that catalyzes the hydrolysis of urea into carbon dioxide and ammonia. $(\text{NH}_2)_2\text{CO} + \text{H}_2\text{O} \rightarrow \text{CO}_2 + 2\text{NH}_3$ Many gastrointestinal or urinary tract pathogens produce urease. Thus its activity is a useful diagnostic parameter for the presence of pathogens such as *Helicobacter pylori*. Urease is found in bacteria, yeast, and higher plants. Urease activity is commonly determined in anaerobes of the bovine rumen, human feces and environmental samples such as soils and phytoplanktons. Urease Assay Kit provides a very sensitive and convenient means to measure urease activity in a variety of samples including soil. In the assay, urease reacts with urea, resulting in the formation of ammonia, which is determined by the Berthelot method at 670nm. The assay is simple, sensitive, stable and high-throughput adaptable.

Applications

Urease activity determination in biological and environmental samples. Evaluation and screening for urease inhibitors

Usage

For research use only (RUO)

Storage

Store all reagents at 4°C. Shelf life of at least 6 months.

Kit Components

Assay Buffer (pH 7.0) 20 mL Reagent A 12 mL Urea 1.5 mL Reagent B 6 mL NH_4Cl : 50 mM 100 μL

Detection method Colorimetric

Compatible Sample Types

Urease Assay Kit

Biological Sample

Features & Benefits

Safe: Non-radioactive assay. Sensitive and accurate: As low as 0.003 U/L urease activity can be quantified. Homogeneous and convenient: "Mix-incubate-measure" type assay. No wash and reagent transfer steps are involved. Robust and amenable to HTS: can be readily automated on HTS liquid handling systems for processing thousands of samples per day
