

Chloride Assay Kit

Product Information

Cat.No.

Kit-2072

Product Overview

Simple, direct and automation-ready procedures for measuring chloride concentration in biological samples are becoming popular in Research and Drug Discovery. The chloride assay kit is designed to measure chloride directly in biological samples without any pretreatment. The improved Fried method utilizes mercuric 2,4,6-tripyridyl-s-triazine, which forms a colored complex specifically with chloride. The intensity of the color, measured at 610nm, is directly proportional to the chloride concentration in the sample. The optimized formulation substantially reduces interference by substances in the raw samples.

Size

250 tests

Description

Chloride is the major extracellular anion in human body fluids. Chloride plays a key role in maintaining proper water distribution, osmotic pressure and electrolyte balance. Low chloride concentrations may be found with prolonged vomiting, extensive burns, metabolic acidosis, Addisonia crisis and renal diseases. Elevated chloride concentrations are associated with dehydration, congestive heart failure, hyperventilation and urinary obstructions. Determination of chloride in sweat is useful in diagnosing cystic fibrosis.

Applications

Direct Assays: in serum, plasma, urine, saliva, sweat etc. Drug Discovery/Pharmacology: effects of drugs on chloride metabolism. Food and Beverages: chloride determination. Environment: chloride determination in water and soil.

Storage

The kit is shipped at room temperature. Store Reagent and Standard at 4°C. Shelf life: 12 months after receipt.



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Kit Components

Reagent: 50 mL Chloride standard: 1 mL 35 mg/dL Cr

Detection method OD_{610nm}

Compatible Sample Types

Biological, food and environment

Features & Benefits

- Sensitive and accurate. Use as little as 5 μ L samples. Linear detection range 0.7 mg/dL (0.2 mM) to 35 mg/dL (10 mM) Cl⁻ in 96-well plate assay.
- Simple and high-throughput. The procedure involves addition of a single working reagent and incubation for 5 min. Can be readily automated as a high-throughput assay for thousands of samples per day.
- Improved reagent stability and versatility. The optimized formulation has greatly enhanced reagent and signal stability. Cuvet or 96-well plate assay.
- Low interference in biological samples. No pretreatments are needed. Assays can be directly performed on raw biological samples i.e., in the presence of lipid, protein and minerals such as magnesium, iron and zinc.

Assay time

5 min

Sensitivity

Detection Limit: 0.7 mg/dL (0.2 mM)