

beta-Glucosidase Assay Kit

Product Information

Cat.No.

Kit-0859

Product Overview

beta-Glucosidase Assay Kit is a colorimetric kinetic determination of beta-Glucosidase activity.

Description

β-GLUCOSIDASE is a glucosidase enzyme which acts upon β1->4 bonds linking two glucose or glucose-substituted molecules (i.e., the disaccharide cellobiose). β-Glucosidases are required by organisms (some fungi, bacteria, termites) for consumption of cellulose. Lysozyme is also a β-glucosidase and is present in tears to prevent bacterial infection of the eye. In humans, lower activity of a β-glucosidase isoform (lysosomal gluco-cerebrosidase) has been related to Gaucher's disease and Parkinson's disease. Simple, direct and automation-ready procedures for measuring β-glucosidase activity are becoming popular in Research and Drug Discovery. Beta-Glucosidase Assay Kit is designed to measure β-glucosidase activity directly in biological samples without pretreatment. The improved method utilizes p-nitrophenyl- β-D-glucopyranoside that is hydrolyzed specifically by β-glucosidase into a yellow colored product (maximal absorbance at 405nm). The rate of the reaction is directly proportional to the enzyme activity.

Applications

Direct Assays: β-glucosidase activity in biological samples. Characterization and Quality Control for β-glucosidase production. Drug Discovery: high-throughput screen for β-glucosidase modulators

Usage

For research use only (RUO)

Storage

Store all reagents at -20°C. Shelf life: 6 months after receipt.

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Kit Components

Assay Buffer: (pH 7.0) 24 mL & beta;-NPG Substrate 1 mL Calibrator: (equivalent to 250 U/L) 10 mL

Detection method Colorimetric

Features & Benefits

High sensitivity and wide linear range: Use 20 µL sample. The detection limit is 2 U/L, linear up to 250 U/L. Homogeneous and simple procedure: Simple "mix-and-measure" procedure allows reliable quantitation of & beta;-glucosidase activity within 20 minutes. Robust and amenable to HTS: All reagents are compatible with high-throughput liquid handling instruments.
