

Chitotriosidase Activity Assay Kit (Fluorometric)

Cat. No. Kit-1075 Lot. No. (See product label)

SPECIFICATION

Description

Chitotriosidase (CHIT1 or chitinase-1), is a mammalian enzyme belonging to glycosyl hydrolase-18 family (EC 3.2.1.14), which can hydrolyze the β -(1, 4)-linkage between the adjacent N-acetyl glucosamine residues of chitin. CHIT1 is synthesized exclusively by activated macrophages both in normal and inflammatory conditions and, as a host defense factor, CHIT1 plays a pivotal role in infectious disease such as malaria and fungi infectious. Increased CHIT1 activity has also been found in patients suffering diseases such as bronchial asthma and atherosclerosis. CHIT1 has been used as a valuable diagnostic biomarker for monitoring the therapeutic efficacy of treatments for Gaucher's disease or β -glucocerebrosidase deficiency. Chitotriosidase Activity Assay, utilizes a fluorogenic substrate that can be hydrolyzed by chitinase and a set of proprietary assay buffers that can distinguish specific CHIT1 activity from other hydrolases including Acidic Mammalian Chitinase. The kit provides a simple, specific, sensitive assay that can detect as low as 0.2 mU/ml of CHIT1 in a variety of biological samples.

Applications

Measurement of Chitotriosidase activity in various biological samples and purified/crude enzyme preparations

Storage

-20°C

Shipping

Gel Pack

Size

100 assays

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Kit Components	CHIT1 Assay Buffer; CHIT1 Inhibition Buffer; CHIT1 Substrate (in DMSO); Chitotriosidase (lyophilized); 4-Methylumbelliferone Standard (5 mM)
Target Species	Mammalian
Detection method	Fluorescence (Ex/Em320/445 nm)
Features & Benefits	Simple, rapid & convenient assay to measure Chitotriosidase activity; Includes Positive Control (Chitotriosidase)

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