CREATIVE BIOMART®
Assay Kit

DNA Methyltransferase Activity/Inhibition Assay Kit (Fluorometric)

Product Information

Cat.No. Kit-0303

Product Overview

DNA Methyltransferase Activity/Inhibition Assay Kit (Fluorometric) is use for measuring Dnmt activity/inhibition.

Description

Epigenetic inactivation of genes plays a critical role in many important human diseases, especially in cancer. A core mechanism for epigenetic inactivation of the genes is methylation of CpG islands in genome DNA. Methylation of CpG islands involves the course in which DNA methyltransferases (Dnmts) transfer a methyl group from S-adenosyl-L-methionine to the fifth carbon position of the cytosines. Four active Dnmts have been identified in mammals. They are named DNMT1, DNMT2, DNMT3A, and DNMT3B. Inhibition of Dnmts maylead to demethylation and expression of the silenced genes, thus Dnmt inhibitors are currently being developed as potential anticancer agents.

Applications

For measuring Dnmt activity/inhibition from a broad range of species including mammalian cells/tissues, plants, and bacteria.

Usage

For research use only (RUO)

Storage

Store MD3, MD4, MD6, and MD7 at –20°C away from light. Store all other components at 4°C away from light.The kit is stable for up to 6 months from date of shipment when stored properly.

Kit Components

MT1 (10X wash buffer) 22 mlMT2 (Dnmt assay buffer) 3 mlMT3 (Adomet, 8 mM)* 70 µlMD4 (Dnmt positive control)* 10 µlMT5 (capture antibody)* 8 µlMT6 (detecting antibody 200 µg/ml)* 20 µlMD7 (fluoro developer)* 24 µlMD8 (fluoro enhancer)* 24 µlMD9 (fluoro dilution) 8 ml8 well substrate-coated strip (with frame) 12* For maximum recovery of the products, centrifuge the original vial

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after thawing prior to opening the cap.

Features & Benefits

Extremely fast procedure, which can be completed within 3 hours.Innovative fluorometric assay with high sensitivity for detecting Dnmt activity generated from as low as 2 ng of enzyme.Strip microplate format makes the assay flexible: manual or high throughput analysis.Simple, reliable, and consistent assay conditions.

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