CREATIVE BIOMART®
Assay Kit

DNA Demethylase Activity/Inhibition Assay Kit

Product Information

Cat.No. Kit-0297

Product Overview

DNA Demethylase Activity/Inhibition Assay Kit is use for measuring DNA demethylase activity/inhibition.

Description

DNA methylation is known to play an essential role in all biological processes through the repression of transcription and development. Hypermethylation of CpGs in the promoters of tumor suppression gene has been demonstrated to cause the epigenetic silence of these genes and constitutes a common feature of many cancers. In contrast, DNA demethylation is necessary for the epigenetic reprogramming of the genes and involves the processes of many important diseases such as tumor progression. Demethylation of DNA can be either passive or active, or a combination of both. Active demethylation of DNA requires specific demethylase participation such as MBD2. There is only the radio isotopic method currently available for measuring DNA demethylase activity/inhibition, which is time consuming, labor-intensive, and has low throughput and produces radioactive waste. The DNA Demethylase Activity/Inhibition Assay Kit addresses these problems by using a unique procedure to measure DNA demethylase. The principle of the assay is based on increased DNA demethylase activity causing the reduction of methylated DNA which can be detected immunologically and is proportional to the colorimetric intensity.

Applications

For measuring DNA demethylase activity/inhibition using purified enzyme or proteiextracts from the cultured cells and tissues.

Usage

For research use only (RUO)

Storage

Store DD3, DD4 and DD6 at –20°C. Store DD5, DD7, and 8 well assay strips at 4°C away from light. Store other components at room temperature. All components are stable for 6 months from date of

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DNA Demethylase Activity/Inhibition Assay Kit

shipment when stored properly.

Kit Components

DD1 (10X wash buffer) 22 mlDD2 (demethylase assay buffer) 3 mlDD3 (demethylase substrate)* 0.2 mlDD4 (demethylation standard, 10 µg/ml)* 40 µlDD5 (capture antibody, 1000 µg/ml)* 8 µlDD6 (detecting antibody, 200 µg/ml)* 20 µlDD7 (developing solution) 12 mlDD8 (stop solution) 6 ml8 well sample strips (with frame) 12

Features & Benefits

Quick and efficient procedure, which can be finished within 3 hours.Innovative colorimetric assay with no need for radioactivity, electrophoresis, and chromatography.Strip microplate format makes the assay flexible: manual or high throughput analysis.Simple, reliable, and consistent assay conditions.