CREATIVE BIOMART®
Assay Kit

DNMT1 Assay Kit

Product Information

Cat.No. Kit-0308

Product Overview

DNMT1 Assay Kit is use for measuring the amount of DNMT1.

Description

Epigenetic inactivation of genes play 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. At least three families of Dnmts have been identified in mammals now: DNMT1, Dnmt2 and Dnmt3. DNMT1 prefers to methylate cytosine residues in hemimethylated DNA. Increased activation or amount of DNMT1 is believed to be involved in carcinogenesis, and other genetic and epigenetic diseases.

Applications

The DNMT1 Assay Kit is very suitable for measuring Dnmt amounts quantitatively from fresh tissue and cultured cells of human and mouse.

Usage

For research use only (RUO)

Storage

The kit is shipped in two parts: one part at ambient room temperature, and the second part on frozen ice packs at 4°C.Upon receipt: (1) Store D3 and D5 at -20°C away from light; (2) Store D1, D2, D4, D6 Blocking buffer and 8-Well Assay Strips at 4°C away from light; (3) Store all other components at room temperature. The kit is stable for up to 6 months from the shipment date, when stored properly.Note: (1) Check if wash buffer, D1, contains salt precipitates before using. If so, warm (at room temperature or 37°C) and shake the buffer until the salts are re-dissolved. (2) Check if a blue color is present in D6 (Developing Solution), which would indicate contamination of the solution and should not be used. To avoid contamination, transfer the amount of D6 required into a secondary

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container (tube or vial) before adding D6 into the assay wells.

Kit Components

D1 (10X Wash Buffer) 28 mLD2 (Assay Buffer) 10 mLD3 (DNMT1 Standard, 20 µg/mL)* 40 µLD4 (Capture Antibody, 500 μg/mL)* 16 μLD5 (Detection antibody 200 μg/mL)* 20 μLD6 (Developing Solution) 12 mLD7 (Stop Solution) 11 mLBlocking Buffer 20 mL8-Well Assay Strip (with Frame) 12 strips* For maximum recovery of the products, centrifuge the original vial prior to opening the cap.

Features & Benefits

Very rapid procedure, which can be finished within 3.5 hours.Innovative colorimetric assay to quantitatively measure the amount of DNMT1 without the need for electrophoresis.Strip microplate format makes the assay flexible: manual or high throughput analysis.Simple, reliable, and consistent assay conditions.