abcam

Product datasheet

DNMT Activity Assay Kit (Colorimetric) ab113467

Overview

Notes

Product name DNMT Activity Assay Kit (Colorimetric)

Detection method Colorimetric

Assay type Enzyme activity (quantitative)

Assay time 3h 45m

Species reactivity Reacts with: Mouse, Rat, Human, Drosophila melanogaster, Plants

Predicted to work with: Mammals, Fungi

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Product overview DNMT Activity Quantification Kit (Colorimetric) ab113467 allows the user to colorimetrically

measure DNA methyltransferase activity or inhibition at extremely fast speed on a 96-strip well

microplate.

The kit is ready-to-use and provides all the essential components needed to carry out a successful DNMT activity/inhibition experiment without the need for radioactivity or any special equipment.

In the DNMT assay protocol, DNMT enzymes in a sample transfer methyl groups from Adomet to a DNMT DNA substrate coated onto microplate wells. The methylated DNA is bound with a 5-methylcytosine antibody. A secondary antibody binds the 5-methylcytosine antibody, and the enzyme-conjugated secondary antibody is detected using a chromogenic enzyme substrate.

DNMT assay protocol summary:

- add samples, positive controls, and samples with inhibitor to wells
- incubate for 90-120 min, and wash wells three times with wash buffer
- add capture antibody, incubate for 60 min, and wash wells
- add detection antibody, incubate for 30 min, and wash wells
- add enhancer solution, incubate for 30 min, and wash wells
- add developer solution, incubate for 1-10 min
- add stop solution and analyze with a microplate reader

DNMT (DNA methylases) is a family of enzymes responsible for the addition of methyl groups on

the cytosine ring at the 5' position of a CpG dinucleotide. The DNMT family is required for the

establishment and maintenance of DNA methylation patterns.

Platform Microplate reader

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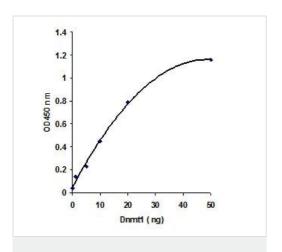
Properties

Storage instructions

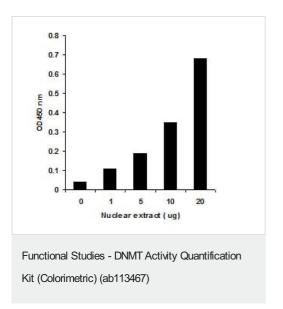
Please refer to protocols.

Components	48 tests	96 tests
10X Wash Buffer	1 x 14ml	1 x 28ml
8-Well Assay Strips (with Frame)	6 units	12 units
Adhesive Covering Film	1 unit	1 unit
Adomet, 50X	1 x 60µl	1 x 120µl
Capture Antibody, 1000 μg/mL	1 x 5µl	1 x 10µl
Detection Antibody, 400 μg/mL	1 x 6µl	1 x 12µl
Developer Solution	1 x 5ml	1 x 10ml
DNMT Assay Buffer	1 x 4ml	1 x 8ml
DNMT Enzyme Control, 50 μg/mL	1 x 6µl	1 x 12µl
Enhancer Solution	1 x 6µl	1 x 12µl
Stop Solution	1 x 5ml	1 x 10ml

Images



Functional Studies - DNMT Activity Quantification Kit (Colorimetric) (ab113467) Demonstration of high sensitivity and specificity of the DNMT activity/inhibition assay achieved by using recombinant DNMT1 with ab113467.



Demonstration of high sensitivity and specificity of the DNMT activity assay achieved by using nuclear extracts with ab113467.

Nuclear extracts were prepared from MCF-7 cells using **ab113474**.

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