

N'-Nicotinamide Methyltransferase (NNMT) Inhibitor Screening Assay Kit

Cat. No. Kit-2215 Lot. No. (See product label)

SPECIFICATION

Product Overview

N'-Nicotinamide Methyltransferase (NNMT) (E.C. 2.1.1.1) catalyzes the N-methylation of nicotinamide, pyridines, and other analogues using S-adenosyl methionine (SAM) as the donor resulting in the production of 1-methylnicotinamide (MNA). NNMT plays a significant role in the regulation of metabolic pathways and is expressed at markedly high levels in several kinds of cancers, neurodegenerative diseases, obesity and diabetes, indicating it is a potential molecular target for therapy. NNMT inhibitor screening kit utilizes SAM as the methyl group donor and nicotinamide as the substrate. NNMT methylates nicotinamide generating S-adenosylhomocysteine (SAH) and 1-methylnicotinamide. The SAH is hydrolyzed by SAH hydrolase to form homocysteine, the free thiol group of which is detected using a Thiol Detecting Probe generating enhanced fluorescence signal that can be measured at Ex/Em = 392/482 nm. In the presence of an NNMT inhibitor, the enzymatic activity is inhibited resulting in decreased fluorescence. This assay kit is a simple, sensitive, and rapid tool to screen potential inhibitors of NNMT.

Applications

Screening/studying/characterizing potential inhibitors of NNMT.

Storage

-80°C

Shipping

Dry Ice

Size

100 assays

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Kit Components	NNMT Assay Buffer; NNMT Enzyme; S-Adenosylmethionine (SAM); Nicotinamide; Enzyme-I; Enzyme-II; 1-Methylnicotinamide (MNA) (150 mM); Thiol Detecting Probe (DMSO); SAM Reconstitution Buffer
Target Species	Mammalian
Detection method	Fluorescence (Ex/Em = 392/482 nm)
Features & Benefits	Rapid assay and simple protocol; Reliable test for screening potential inhibitors of NNMT; Includes Inhibitor Control, 1-Methylnicotinamide (MNA)

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