**BioVision** 05/16

PRODUCT: 5'-Deoxy-5'methylthioadenosine

ALTERNATE NAME: 5'-S-methyl-5'-thio-adenosine; Methylthioadenosine; MTA;

NSC 335422; Vitamil L2

CATALOG #: B1053-10, 50

AMOUNT: 10 mg, 50 mg

STRUCTURE:

 $C_{11}H_{15}N_5O_3S$ **MOLECULAR FORMULA:** 

MOLECULAR WEIGHT: 297.3

**CAS NUMBER:** 2457-80-9

APPEARANCE: White to off-white solid

SOLUBILITY: DMSO (>25 mg/ml)

**PURITY:** ≥98%

STORAGE: Store at -20°C. Protect from air and light

**DESCRIPTION:** 5'-Deoxy-5'-methylthioadenosine (MTA) is an intermediate in

the generation of adenine and methionine that is produced by the decarboxylation of S-adenosylmethionine. Acts as a potent agonist of adenosine receptors ( $K_i$ s = 0.15, 1.13, 13.9, and 0.68 µM for A<sub>1</sub>, A<sub>2A</sub>, A<sub>2B</sub>, and A<sub>3</sub>, respectively). At higher concentrations, MTA inhibits several enzymes, including protein carboxylmethyltransferase (K<sub>i</sub> = 41 µM), Sadenosylhomocysteine hydrolase, SET methyltransferases,

and spermidine and spermine synthases.

REFERENCES: Kryukov, G.V., et al. (2016). Science 351, 1214-1218.

HANDLING: Do not take internally. Wear gloves and mask when handling

the product! Avoid contact by all modes of exposure.

**RELATED PRODUCTS:** 

A-366 (Cat. No. 2859-1, 5)

AMI-1 (Cat. No. 1943-5, 25)

Aza-2'-deoxycytidine (Cat. No. 1754-10, 50)

5- BIX01294 (Cat. No. 1678-5, 25) BRD4770 (Cat. No. 9525-5, 25)

Bromodomain Inhibitor, (+)-JQ1 (Cat. No. 2070-1, 5)

EZSolution™ (+)-JQ1 (Cat. No. 2091-1)

3-Deazaneplanocin (Cat. No. 2060-250, 1000)

2'-Deoxy-5-fluorocytidine (Cat. No. 2387-50, 250

EPZ-015666 (Cat. No. 9510-1,5) Lomeguatrib (Cat. No. 2224-5, 25)

Nanaomycin A (Cat. No. 2790-5, 25)

RG108 (Cat. No. 1679-10, 30)

SGI-1027 (Cat. No. 2726-5, 25)

UNC0638 (Cat. No. 1933-1, 5)

UNC0642 (Cat. No. 2862-5, 25)

Zebularine (Cat. No. 2225-1, 5)

USAGE: FOR RESEARCH CH USE ONLY! Not to be used in humans