

# Methyltransferase Activity Assay Kit (Colorimetric)

**Cat. No.** Kit-1086    **Lot. No.** (See product label)

## SPECIFICATION

### Product Overview

**Description**

Methyltransferases are a diverse group of enzymes that methylate proteins, DNA, and small molecule targets. Accordingly, methyl transferase activity plays a critical role in modulating gene transcription, protein interactions, and signaling networks. Anomalous DNA methylation patterns have been consistently detected during cancer development as well as in many genetic disorders such as Fragile X Syndrome, ICF, and Rett Syndrome. Methyltransferase Activity Assay Kit (Colorimetric) allows for kinetic evaluation of methyltransferase activity of purified enzymes and their inhibitors. The transfer of a methyl group from S-Adenosyl Methionine (SAM) cofactor to a corresponding substrate generates S-Adenosyl Homocysteine (SAH) as a product. SAH is detected by coupling the methyl transfer reaction to a multi-step enzymatic cascade, resulting in the generation of an intermediate that reacts with OxiRed™ Probe. The reaction product exhibits a strong absorbance at 570 nm. The limit of quantification (L.O.Q) is 296 pmol of SAH generated per min per ml (296 µU/ml) of purified enzymes.

**Applications**      Fast and convenient

**Storage**            -20°C

**Shipping**           Gel Pack

**Size**                 100 assays

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

|                                |                                                                                                                                                                           |
|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Kit Components</b>          | MT Assay Buffer; Enzyme Re-suspension Buffer; Enzyme Mix I; Enzyme Mix II; Enzyme Mix III; SAM Cofactor (50 mM); SAH Standard (50 mM); MT Positive Control; OxiRed™ Probe |
| <b>Target Species</b>          | Mammalian                                                                                                                                                                 |
| <b>Detection method</b>        | Colorimetric (OD 570 nm)                                                                                                                                                  |
| <b>Features &amp; Benefits</b> | Simple, rapid & convenient assay to measure Methyltransferase Activity in purified enzyme;<br>Includes Positive Control                                                   |

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