**Human PRMT1 Methyltransferase**

**M0221S**

- **Units**: 2,000 U/ml
- **Lot**: 0031210
- **Store at**: –20°C
- **Exp**: 10/14

**Description:** PRMT1 is a major protein arginine methyltransferase (1). It specifically methylates arginine 3 (Arg 3) of H4 in vitro and in vivo. Furthermore, methylation of histone H4 at Arg 3 facilitates transcriptional activation by nuclear hormone receptor (2). Ordered cooperative functions of PRMT1, p300 and CARM1 in transcriptional activation by p53 is observed on the GADD45 gene following ectopic p53 expression and/or UV irradiation (3).

**Unit Definition:** One unit is defined as the amount of enzyme required to catalyze the transfer of 1 pmol of methyl group to synthetic peptide substrate representing the first 17 amino acids of histone H4 in a total reaction volume of 25 µl in 10 minutes at 37°C.

**Quality Assurance:** Purified free of contaminating proteases.

**Storage Note:** S-adenosylmethionine (SAM) is stored at –20°C as a 32 mM solution dissolved in 0.005 M sulfuric acid and 10% ethanol (pH 7.5). Under these conditions, SAM is stable for up to 6 months. SAM is unstable at 37°C and should be replenished in reactions incubated longer than 4 hours. Methylation can be optimized by using fresh SAM.

**Heat Inactivation:** 65°C for 20 minutes.

**References:**

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