

Store at
-20°C**UNC1999****#46080**

1 mg

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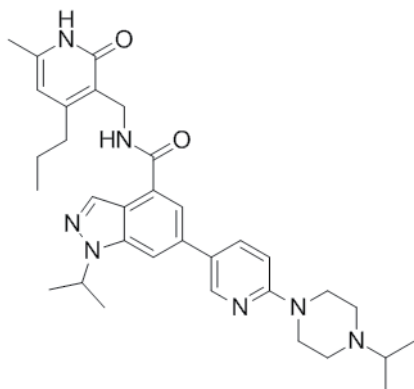
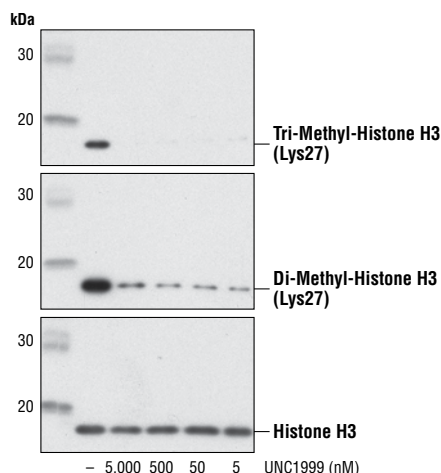
New 06/15

For Research Use Only. Not For Use In Diagnostic Procedures.

Background: UNC1999 inhibits EZH2 and EZH1 histone-lysine N-methyltransferase activity through competitive inhibition of the cofactor S-Adenosyl-L-methionine (SAM). UNC1999 displays potent specificity relative to other histone methyltransferases. IC₅₀ values for EZH2 and EZH1 are 2 nM and 45 nM, respectively (1). Research studies demonstrate that UNC1999 effectively blocks histone H3 lysine 27 (H3K27) methylation. UNC1999 induces anti-proliferation, cell differentiation, and apoptosis, while exhibiting low cellular toxicity (1,2).

Background References:

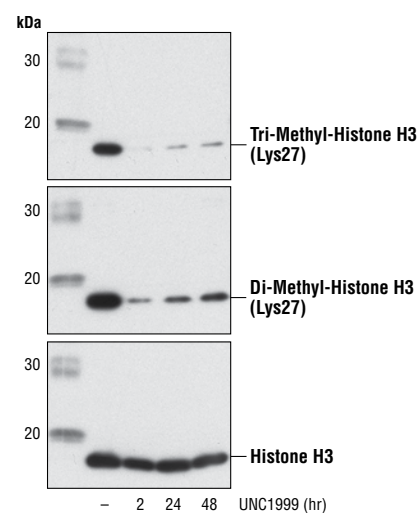
- (1) Konze, K.D. et al. (2013) *ACS Chem Biol* 8, 1324-34.
(2) Xu, B. et al. (2015) *Blood* 125, 346-57.

Molecular Formula: C₃₃H₄₃N₇O₂**Molecular Weight:** 569.8 g/mol**Solubility:** Soluble in DMSO at 15 mg/ml; poorly soluble in aqueous buffers.**Purity:** >98%

Western blot analysis of extracts from HeLa cells, untreated (-) or treated with UNC1999 (2 hr) at the indicated concentrations, using Tri-Methyl-Histone H3 (Lys27) (C36B11) Rabbit mAb #9733 (upper), Di-Methyl-Histone H3 (Lys27) (D18C8) XP® Rabbit mAb #9728 (middle), and Histone H3 (D1H2) XP® Rabbit mAb #4499 (lower).

Storage: Store lyophilized or in solution at -20°C, desiccated. In lyophilized form, the chemical is stable for 24 months. Once in solution, use within 3 months to prevent loss of potency. Aliquot to avoid multiple freeze/thaw cycles.

Directions for Use: UNC1999 is supplied as a lyophilized powder. For a 5 mM stock, reconstitute the 1 mg in 350.97 µl DMSO. Working concentrations and length of treatment can vary depending on the desired effect, but it is typically used at 5 nM-5 µM for 2-48 hr.



Western blot analysis of extracts from HeLa cells, untreated (-) or treated with UNC1999 (5 µM) at the indicated time points, using Tri-Methyl-Histone H3 (Lys27) (C36B11) Rabbit mAb #9733 (upper), Di-Methyl-Histone H3 (Lys27) (D18C8) XP® Rabbit mAb #9728 (middle), and Histone H3 (D1H2) XP® Rabbit mAb #4499 (lower).

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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide **Species Cross-Reactivity:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.