

Product Data Sheet

Product Name: Histone H3K9Me3 (3-17) (human, mouse, rat, porcine, bovine) (trifluoroacetate salt)
 Cat. No.: GC45484

Chemical Properties

Cas. No.

SMILES CC(C)C1=C(O)C=C(C)C(O)=C1

Formula C₆₈H₁₂₅N₂₅O₂₁.XCF₃COOH M.Wt 1628.9

Solubility Water: 1 mg/ml Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure H—Thr—Lys—Gln—Thr—Ala—Arg—Lys(Me₃)—Ser—Thr—Gly—
 Gly—Lys—Ala—Pro—Arg—OH
 • XCF₃COOH

Background

Histone H3K9Me3 (3-17) is an N-terminal peptide fragment of histone H3 that corresponds to amino acid residues 4-18 of the human histone H3 sequence. Trimethylation of histone H3 at lysine 9 is associated with gene repression, prevents transcription factor binding, and is a target of the heterochromatin protein 1 (HP1) family proteins CBX1, CBX3, and CBX5.^{1,2} It is recognized by the plant homeodomain fingers of chromodomain helicase DNA binding protein 4 (CHD4), a member of the NuRD deacetylase complex that is upregulated in a variety of cancers and implicated in the DNA damage response.³

References

1. Kaustov, L., Ouyang, H., Amaya, M., et al. Recognition and specificity determinants of the human Cbx chromodomains. *J. Biol. Chem.* 286(1), 521-529 (2011).
2. Becker, J.S., Nicetto, D., and Zaret, K.S. H3K9me3-dependent heterochromatin: Barrier to cell fate changes. *Trends Genet.* 32(1), 29-41 (2016).
3. Mansfield, R.E., Musselman, C.A., Kwan, A.H., et al. Plant homeodomain (PHD) fingers of CHD4 are histone H3-binding modules with preference for unmodified H3K4 and methylated H3K9. *J. Biol.*

Caution: Product has not been fully validated for medical applications. For research use only.

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Chem. 286(13), 11779-11791 (2011).

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