

PRODUCT INFORMATION

Histone H3K9Me3 (1-24) (human, mouse, rat, porcine, bovine) (trifluoroacetate salt)

Item No. 27517

Formal Name:	L-alanyl-L-arginyl-L-threonyl-L-lysyl-L-glutamyl-L-threonyl-L-alanyl-L-arginyl-6-(trimethylammonio)-L-norleucyl-L-seryl-L-threonylglycylglycyl-L-lysyl-L-alanyl-L-prolyl-L-arginyl-L-lysyl-L-glutamyl-L-leucyl-L-alanyl-L-threonyl-L-lysyl-L-alanine, trifluoroacetate salt
Synonyms:	ARTKQTAR-K(Me3)-STGGKAPRKQLATKA, H-Ala-Arg-Thr-Lys-Gln-Thr-Ala-Arg-Lys(Me3)-Ser-Thr-Gly-Gly-Lys-Ala-Pro-Arg-Lys-Gln-Leu-Ala-Thr-Lys-Ala-OH, H3K9me3, [Lys(Me3)9]-Histone H3 (1-24), Histone H3 (1-24) (Lys ⁹ me3)
MF:	C ₁₁₀ H ₂₀₂ N ₄₀ O ₃₂ • XCF ₃ COOH
FW:	2,597.0
Purity:	≥95%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Histone H3K9Me3 (1-24) (human, mouse, rat, porcine, bovine) (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the histone H3K9Me3 (1-24) (human, mouse, rat, porcine, bovine) (trifluoroacetate salt) in water. The solubility of histone H3K9Me3 (1-24) (human, mouse, rat, porcine, bovine) (trifluoroacetate salt) in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Histone H3K9Me3 (1-24) is an N-terminal peptide fragment of histone H3 that corresponds to amino acid residues 2-25 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. Chem.* **286**(13), 11779-11791 (2011).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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