

# PRODUCT INFORMATION



## Histone H3K9Me1 (3-17) (human, mouse, rat, porcine, bovine) (trifluoroacetate salt)

Item No. 27525

**Formal Name:** N<sup>2</sup>-L-threonyl-L-lysyl-L-glutaminy-L-threonyl-L-alanyl-L-arginyl-N<sup>6</sup>-methyl-L-lysyl-L-seryl-L-threonylglycylglycyl-L-lysyl-L-alanyl-L-prolyl-L-arginine, trifluoroacetate salt

H—Thr—Lys—Gln—Thr—Ala—Arg—Lys(Me1)—Ser—Thr—Gly—

**Synonyms:** Histone H3 (3-17) (Lys<sup>9</sup>me1), [Lys(Me1)<sup>9</sup>]-Histone H3 (3-17), TKQTAR-K(Me1)-STGGKAPR

Gly—Lys—Ala—Pro—Arg—OH

• XCF<sub>3</sub>COOH

**MF:** C<sub>66</sub>H<sub>121</sub>N<sub>25</sub>O<sub>21</sub> • XCF<sub>3</sub>COOH

**FW:** 1,600.8

**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 H3K9Me1 (3-17) (human, mouse, rat, porcine, bovine) (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the histone H3K9Me1 (3-17) (human, mouse, rat, porcine, bovine) (trifluoroacetate salt) in water. The solubility of histone H3K9Me1 (3-17) (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 H3K9Me1 (3-17) is a peptide fragment of histone H3 that corresponds to amino acid residues 4-18 of the human histone H3 sequence. Monomethylation of histone H3 at lysine 9 is found at euchromatin regions of silenced genes and is correlated with gene repression.<sup>1</sup> Recognition of H3K9Me1 by the H3K9 demethylases GLP and G9a is essential to embryonic stem cell differentiation and viability in mice.<sup>2</sup> Cytoplasmic expression of H3K9Me1 is associated with reduced disease-specific mortality risk in patients with oral and/or oropharyngeal squamous cell carcinoma.<sup>3</sup>

### References

1. Gupta, J., Kumar, S., Li, J., *et al.* Histone H3 lysine 4 monomethylation (H3K4me1) and H3 lysine 9 monomethylation (H3K9me1): Distribution and their association in regulating gene expression under hyperglycaemic/hyperinsulinemic conditions in 3T3 cells. *Biochimie* **94**(12), 2656-2664 (2012).
2. Liu, N., Zhang, Z., Wu, H., *et al.* Recognition of H3K9 methylation by GLP is required for efficient establishment of H3K9 methylation, rapid target gene repression, and mouse viability. *Genes Dev.* **29**(4), 379-393 (2015).
3. Maia, L.L., Peterle, G.T., Dos Santos, M., *et al.* JMJD1A, H3K9me1, H3K9me2 and ADM expression as prognostic markers in oral and oropharyngeal squamous cell carcinoma. *PLoS One* **13**(3), e019884 (2018).

#### 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.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/01/2022

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897

[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM