

PRODUCT INFORMATION

Histone H3K9Ac (1-24) (human, mouse, rat, porcine, bovine) (trifluoroacetate salt)

Item No. 27516

Synonyms:	ARTKQTAR-K(Ac)-STGGKAPRKQLATKA, H-Ala-Arg-Thr-Lys-Gln-Thr-Ala-Arg-Lys(Ac)-Ser- Thr-Gly-Gly-Lys-Ala-Pro-Arg-Lys-Gln-Leu-Ala- Thr-Lys-Ala-OH, Histone H3 (1-24) (Lys ⁹ ac), [Lys(Ac)9]-Histone H3 (1-24)	H-Ala-Arg-Thr-Lys-Gln-Thr-Ala-Arg-Lys(Ac)-Ser- Thr-Gly-Gly-Lys-Ala-Pro-Arg-Lys-Gln-Leu- Ala-Thr-Lys-Ala-OH • XCF ₃ COOH
MF:	C ₁₀₉ H ₁₉₈ N ₄₀ O ₃₃ • 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 H3K9Ac (1-24) (human, mouse, rat, porcine, bovine) (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the histone H3K9Ac (1-24) (human, mouse, rat, porcine, bovine) (trifluoroacetate salt) in water. The solubility of histone H3K9Ac (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 H3K9Ac (1-24) is a peptide fragment that corresponds to amino acid residues 2-25 of the human histone H3 sequence. Acetylation of histone H3 at lysine 9 is associated with active gene transcription and can recruit the super elongation complex to chromatin through direct binding with the AF9 and ENL subunits.^{1,2} It increases at the IFN-β promoter in HeLa cells upon infection with Sendai virus.³ Acetylation of histone H3 at lysine 9 decreases following induction of DNA damage in HeLa and U2OS cells.⁴

References

1. Jenuwein, T. and Allis, C.D. Translating the histone code. *Science* **293**(5532), 1074-1080 (2001).
2. Gates, L.A., Shi, J., Rohira, A.D., et al. Acetylation on histone H3 lysine 9 mediates a switch from transcription initiation to elongation. *J. Biol. Chem.* **292**(35), 14456-14472 (2017).
3. Agaloti, T., Chen, G., and Thanos, D. Deciphering the transcriptional histone acetylation code for a human gene. *Cell* **111**(3), 381-392 (2002).
4. Tjeertes, J.V., Miller, K.M., and Jackson, S.P. Screen for DNA-damage-responsive histone modifications identifies H3K9Ac and H3K56Ac in human cells. *EMBO J.* **28**(13), 1878-1889 (2009).

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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