

PRODUCT INFORMATION



Histone H3K27Me1 (21-44)-GK-biotin (trifluoroacetate salt)

Item No. 27765

Formal Name:	L-alanyl-L-threonyl-L-lysyl-L-alanyl-L-alanyl-L-arginyl-N ⁶ -methyl-L-lysyl-L-seryl-L-alanyl-L-prolyl-L-alanyl-L-threonylglycylglycyl-L-valyl-L-lysyl-L-lysyl-L-prolyl-L-histidyl-L-arginyl-L-tyrosyl-L-arginyl-L-prolylglycylglycyl-L-lysinate-biotin, trifluoroacetate salt	H—Ala—Thr—Lys—Ala—Ala—Arg—Lys(Me1)—Ser—Ala—Pro—
Synonyms:	ATKAAR-K(Me1)-SAPATGGVKKPHRYRPG-GK(Biotin), [Lys(Me1)27]-Histone H3 (21-44)-GK(Biotin), Histone H3 (21-44) (Lys ²⁷ me1)	Ala—Thr—Gly—Gly—Val—Lys—Lys—Pro—His—Arg— Tyr—Arg—Pro—Gly—Gly—Lys(Biotin)—OH
MF:	C ₁₂₈ H ₂₁₆ N ₄₄ O ₃₃ S • XCF ₃ COOH	• XCF ₃ COOH
FW:	2,931.5	
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 H3K27Me1 (21-44)-GK-biotin (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the histone H3K27Me1 (21-44)-GK-biotin (trifluoroacetate salt) in water. The solubility of histone H3K27Me1 (21-44)-GK-biotin (trifluoroacetate salt) in water is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Histone H3K27Me1 (21-44)-GK-biotin is a peptide fragment of histone H3 that corresponds to amino acid residues 22-45 of the human histone H3.1 and H3.2 sequences. It is monomethylated at lysine 27 and biotinylated via a C-terminal GK linker. Monomethylation of histone H3 at lysine 27 is associated with actively transcribed genes and positively correlates with H3K36 trimethylation.¹ Levels of H3K27Me1 are increased in tumor tissue isolated from patients with metastatic hormone-naïve and castration-resistant prostate cancer.² Histone H3K27Me1 (21-44)-GK-biotin has been used in a high-throughput screen for inhibitors of the histone demethylase jumonji AT-rich interactive domain 1B (JARID1B).³

References

1. Ferrari, K.J., Scelfo, A., Jammula, S., et al. Polycomb-dependent H3K27me1 and H3K27me2 regulate active transcription and enhancer fidelity. *Mol. Cell* **53(1)**, 49-62 (2014).
2. Ellinger, J., Kahl, P., von der Gathen, J., et al. Global histone H3K27 methylation levels are different in localized and metastatic prostate cancer. *Cancer Invest.* **30(2)**, 92-97 (2012).
3. Sayegh, J., Cao, J., Zou, M.R., et al. Identification of small molecule inhibitors of Jumonji AT-rich interactive domain 1B (JARID1B) histone demethylase by a sensitive high throughput screen. *J. Biol. Chem.* **288(13)**, 9408-9417 (2013).

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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