

PRODUCT INFORMATION



Histone H3K27Me2 (21-44)-GK-biotin (trifluoroacetate salt)

Item No. 27766

Formal Name:	L-alanyl-L-threonyl-L-lysyl-L-alanyl-L-alanyl-L-arginyl-N ⁶ ,N ⁶ -dimethyl-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-lysine-biotin, trifluoroacetate salt	H—Ala—Thr—Lys—Ala—Ala—Arg—Lys(Me2)—Ser—Ala—Pro—
Synonyms:	ATKAAR-K(Me2)-SAPATGGVKKPHRYRPG-GK(Biotin), Histone H3 (21-44) (Lys ²⁷ me2)-GK(Biotin), [Lys(Me2)27]-Histone H3 (21-44)-GK(Biotin)	Ala—Thr—Gly—Gly—Val—Lys—Lys—Pro—His—Arg— Tyr—Arg—Pro—Gly—Gly—Lys(Biotin)—OH
MF:	C ₁₂₉ H ₂₁₈ N ₄₄ O ₃₃ S • XCF ₃ COOH	• XCF ₃ COOH
FW:	2,945.5	
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 H3K27Me2 (21-44)-GK-biotin (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the histone H3K27Me2 (21-44)-GK-biotin (trifluoroacetate salt) in water. The solubility of histone H3K27Me2 (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 H3K27Me2 (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 3.2 sequences. It is dimethylated at lysine 27 and biotinylated via a C-terminal GK linker. Dimethylation of H3K27 is present on large chromatin domains across approximately 70% of total histone H3 and prevents firing of non-cell type-specific enhancers.¹ H3K27Me2 accumulates in gene bodies of genes with low levels of expression in mouse embryonic stem cells. Histone H3K27Me2 (21-44)-GK-biotin has been used as a positive control in a high-throughput screen for inhibitors of the histone demethylase jumonji AT-rich interactive domain 1B (JARID1B).²

References

1. Fererari, 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. 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.

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.

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