

PRODUCT INFORMATION

Histone H3 (23-34) (human, mouse, rat, bovine) (trifluoroacetate salt) Item No. 28139

Formal Name:	L-lysyl-L-alanyl-L-alanyl-L-arginyl-L-lysyl-L-seryl-L-alanyl-L-prolyl-L-alanyl-L-threonylglycyl-glycine, trifluoroacetate salt		
Synonym:	KAARKSAPATGG	H—Lys—Ala—Ala—Arg—Lys—Ser—Ala—Pro—Ala—Thr—	
MF:	C ₄₆ H ₈₃ N ₁₇ O ₁₅ • XCF ₃ COOH	Gly—Gly—OH	
FW:	1,114.3	• XCF ₃ COOH	
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 H3 (23-34) (human, mouse, rat, bovine) (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the histone H3 (23-34) (human, mouse, rat, bovine) (trifluoroacetate salt) in water. The solubility of histone H3 (23-34) (human, mouse, rat, 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 H3 (23-34) is a peptide fragment of histone H3 that corresponds to amino acid residues 24-35 of the human histone H3.1 and H3.2 sequences. It contains lysine residues at positions 23 and 27 that are subject to methylation and acetylation and have a role in the regulation of gene expression and a serine residue at position 28 that is subject to phosphorylation during mitosis.¹⁻³ Histone H3 (23-34) has been used in epitope mapping of the lupus-derived monoclonal antibody BT164.⁴

References

1. Bhaumik, S.R., Smith, E., and Shilatifard, A. Covalent modifications of histones during development and disease pathogenesis. *Nat. Struct. Mol. Biol.* **14**(11), 1008-1016 (2007).
2. Garcia, B.A., Hake, S.B., Diaz, R.L., *et al.* Organismal differences in post-translational modifications in histones H3 and H4. *J. Biol. Chem.* **282**(10), 7641-7655 (2007).
3. Hake, S.B., Garcia, B.A., Kauer, M., *et al.* Serine 31 phosphorylation of histone variant H3.3 is specific to regions bordering centromeres in metaphase chromosomes. *Proc. Natl. Acad. Sci. U.S.A.* **102**(18), 6344-6349 (2005).
4. van Bavel, C.C., Dieker, J., Kroeze, Y., *et al.* Apoptosis-induced histone H3 methylation is targeted by autoantibodies in systemic lupus erythematosus. *Ann. Rheum. Dis.* **70**(1), 201-207 (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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