

PRODUCT INFORMATION



Histone H3K14Ac/H3K23Ac (1-24)-GGK-biotin (trifluoroacetate salt) Item No. 27520

Synonyms: ARTKQTARKSTGG-K(Ac)-APRKQLAT-K(Ac)-AGG-K(Biotin), Histone H3 (1-24) (Lys¹⁴ac/Lys²³ac), [Lys(Ac)14/23]-Histone H3 (1-24)-GGK(Biotin)
MF: C₁₃₁H₂₃₂N₄₆O₃₉S • XCF₃COOH
FW: 3,107.6
Purity: ≥95%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years

H—Ala—Arg—Thr—Lys—Gln—Thr—Ala—Arg—Lys—Ser—
Thr—Gly—Gly—Lys(Ac)—Ala—Pro—Arg—Lys—Gln—Leu—
Ala—Thr—Lys(Ac)—Ala—Gly—Gly—Lys(Biotin)—OH
• XCF₃COOH

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Histone H3K14Ac/H3K23Ac (1-24)-GGK-biotin (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the histone H3K14Ac/H3K23Ac (1-24)-GGK-biotin (trifluoroacetate salt) in water. The solubility of histone H3K14Ac/H3K23Ac (1-24)-GGK-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 H3K14Ac/H3K23Ac (1-24)-GGK-biotin is a peptide fragment of histone H3 that corresponds to amino acid residues 2-25 of the human histone H3 sequence. It is acetylated at lysine 14 and lysine 23 and biotinylated via a C-terminal GGK linker. Acetylation of H3K14 or H3K23 is associated with transcriptional activation and H3K14 acetylation is required for trimethylation of H3K4.^{1,2} H3K23 acetylation is decreased in wild-type but increased in uninephrectomized *db/db* mouse kidney.³

References

1. Keating, S.T., van Diepen, J.A., Risken, N.P., *et al.* Epigenetics in diabetic nephropathy, immunity and metabolism. *Diabetologia* **61**(1), 6-20 (2018).
2. Nakanishi, S., Sanderson, B.W., Delventhal, K.M., *et al.* A comprehensive library of histone mutants identifies nucleosomal residues required for H3K4 methylation. *Nat. Struct. Mol. Biol.* **15**(8), 881-888 (2008).
3. Sayyed, S.G., Gaikwad, A.B., Lichtnekert, J., *et al.* Progressive glomerulosclerosis in type 2 diabetes is associated with renal histone H3K9 and H3K23 acetylation, H3K4 dimethylation and phosphorylation at serine 10. *Nephrol. Dial. Transplant.* **25**(6), 1811-1817 (2010).

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

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