PRODUCT INFORMATION

Histone H3 (1-15) (Phospho-Ser^{10}) (human, mouse, rat, porcine, bovine) (trifluoroacetate salt)

Item No. 27494

Formal Name: N-L-alanyl-L-arginyl-L-threonyl-L-lysyl-L-glutaminyl-L-threonyl-L-alanyl-L-arginyl-L-lysyl-O-phosphono-L-seryl-L-threonylglycylglycyl-L-lysyl-L-alanine, trifluoroacetate salt

Synonyms: ARTKQTARK-pS-TGGKA, [pSer10]-Histone H3 (1-15), 1-15 H3pS10, H3S10ph (1-15), $H3_{1-15}$S10ph

MF: $C_{63}H_{118}N_{25}O_{24}P \bullet XCF_3COOH$

FW: 1,640.8

Purity: ≥95%

Supplied as: A solid

Storage: -20°C

Stability: ≥4 years

H—Ala—Arg—Thr—Lys—Gln—Thr—Ala—Arg—Lys—pSer—Thr—Gly—Gly—Lys—Ala—OH • XCF_3COOH

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

Laboratory Procedures

Histone H3 (1-15) (phospho-Ser^{10}) (human, mouse, rat, porcine, bovine) (trifluoroacetate salt) is supplied as a solid. A stock solution may be made by dissolving the histone H3 (1-15) (phospho-Ser^{10}) (human, mouse, rat, porcine, bovine) (trifluoroacetate salt) in water. The solubility of histone H3 (1-15) (phospho-Ser^{10}) (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 H3 (1-15) (phospho-Ser^{10}) is a peptide fragment that corresponds to amino acid residues 2-16 of the human histone H3 sequence. Phosphorylation of histone H3 at serine 10 is correlated with chromatin condensation during mitosis and with transcriptional activation of genes during interphase.[1,2] Histone H3 (1-15) (phospho-Ser^{10}) does not inhibit binding of the ADD domain of the chromatin-remodeling protein ATRX to histone H3 due to its positioning away from the core peptide binding sequence but does decrease binding of the HP1α chromodomain (CD) when histone H3 is also methylated at lysine 9.[3]

References

1. Sawicka, A. and Seiser, C. Histone H3 phosphorylation - A versatile chromatin modification for different occasions. *Biochimie* **94(11),** 2193-2201 (2012).
2. Prigent, C. and Dimitrov, S. Phosphorylation of serine 10 in histone H3, what for? *J. Cell. Sci.* **116 (Pt 18),** 3677-3685 (2003).
3. Noh, K.M., Maze, I., Zhao, D., *et al.* ATRX tolerates activity-dependent histone H3 methyl/phos switching to maintain repetitive element silencing in neurons. *Proc. Natl. Acad. Sci. USA* **112(22),** 6820-6827 (2015).

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