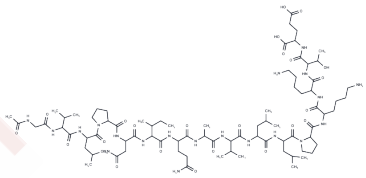
Data Sheet (Cat.No.TP2257)

TargetMol

Histone-H2A-(107-122)-Ac-OH

Chemical Properties



CAS No. :

Formula: C81H140N20O23

Molecular Weight: 1762.1

Storage: Keep away from moisture
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Histone-H2A-(107-122)-Ac-OH is a peptide with the sequence Ac-Gly-Val-Leu-Pro-Asn-Ile-Gln-Ala-Val-Leu-Leu-Pro-Lys-Lys-Thr-Glu-OH, MW= 1762.1. Histone H2A is one of the five main histone proteins involved in the structure of chromatin in eukaryotic cells. Histones are proteins that package DNA into nucleosomes.
Targets(IC50)	Others
In vitro	Histones are responsible for maintaining the shape and structure of a nucleosome. One chromatin molecule is composed of at least one of each core histones per 100 base pairs of DNA. There are five families of histones known to date; these histones are termed H1/H5, H2A, H2B, H3, and H4. H2A is important for packaging DNA into chromatin. Since H2A packages DNA molecules into chromatin, the packaging process will affect gene expression. H2A has been correlated with DNA modification and epigenetics. H2A plays a major role in determining the overall structure of chromatin. Inadvertently, H2A has been found to regulate gene expression. DNA modification by H2A occurs in the cell nucleus. Proteins responsible for the nuclear import of H2A protein are karyopherin and importin. Recent studies also show that nucleosome assembly protein 1 is also used to transport of H2A into the nucleus so it can wrap DNA. Other functions of H2A have been seen in the histone variant H2A.Z. This variant is associated with gene activation, silencing, and suppression of antisense RNA. In addition, when H2A.Z was studied in human and yeast cells, it was used to promote RNA polymerase II recruitment [2][3][4].

Solubility Information

Solubility	DMSO: ≥176.2 mg/mL,Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.5675 mL	2.8375 mL	5.675 mL
5 mM	0.1135 mL	0.5675 mL	1.135 mL
10 mM	0.0568 mL	0.2838 mL	0.5675 mL
50 mM	0.0114 mL	0.0568 mL	0.1135 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.