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Datasheet for ABIN2669565

Histone 3 Protein (H3) (H3K4me2)

3 Images

Overview

Quantity:	25 µg
Target:	Histone 3 (H3)
Protein Characteristics:	H3K4me2
Origin:	Human
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Application:	Positive Control (PC), Substrate (S)

Product Details

Characteristics:	Recombinant Histone H3 dimethyl Lys4 (H3K4me2) proteins are generated using expressed protein ligation (EPL) technology. Truncated human Histone H3.2 is produced in E. coli and purified using FPLC. The purified protein is subsequently ligated to a N-terminal histone tail peptide containing dimethyl lysine 4 via a native peptide bond. The full-length protein is then repurified prior to lyophilization. Protein concentration was determined using the molar extinction coefficient for Histone H3 and absorbance at 280nm. The recombinant histone is >98 % pure by SDS-PAGE and confirmed by high-resolution ESI-TOF mass spectrometry. The molecular weight of the recombinant histone is 15,253 Daltons.
Purification:	Purified using FPLC
Purity:	The recombinant histone is >98 % pure by SDS-PAGE and confirmed by high-resolution ESI-TOF mass spectrometry.

Target Details

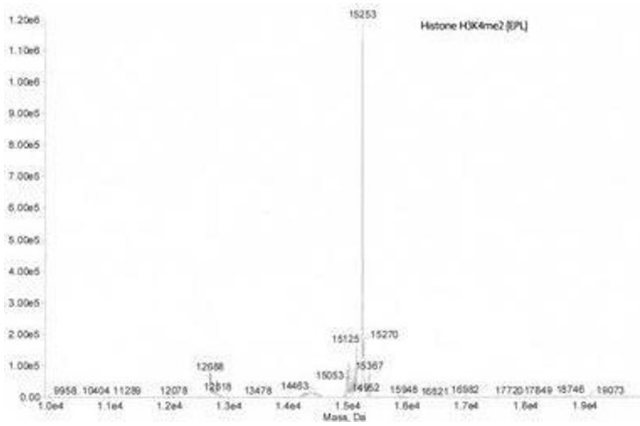
Target:	Histone 3 (H3)
Alternative Name:	Histone H3 (H3 Products)
Background:	Histone H3 is one of the core components of the nucleosome. The nucleosome is the smallest subunit of chromatin and consists of 146 base pairs of DNA wrapped around an octamer of core histone proteins (two each of H2A, H2B, H3 and H4). Histone H1 is a linker protein, present at the interface between the nucleosome core and DNA entry/exit points.
Molecular Weight:	The molecular weight of the recombinant histone is 15,253 Daltons.

Application Details

Application Notes:	Recombinant histones are suitable for use as positive controls in the analysis of histone post-translational modifications, as substrates for histone modification enzymes, or to generate chromatin in vitro.
Restrictions:	For Research Use only

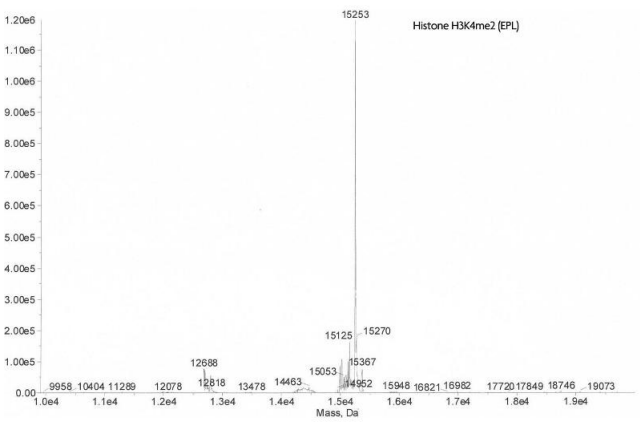
Handling

Format:	Lyophilized
Reconstitution:	Recombinant histones can be resuspended in water or any suitable buffer. We recommend a starting concentration of 1 mg/mL. To fully solubilize the histone we suggest resuspension in the buffer of choice at room temperature for 20-30 minutes with occasional pipetting. Addition of salt or Tris to the resuspension buffer may enhance histone solubility.
Handling Advice:	Avoid repeated freeze/thaw cycles and keep on ice when not in storage.
Storage:	-20 °C/-80 °C
Storage Comment:	Lyophilized proteins can be stored at -20°C or -80°C, preferably desiccated. Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation.



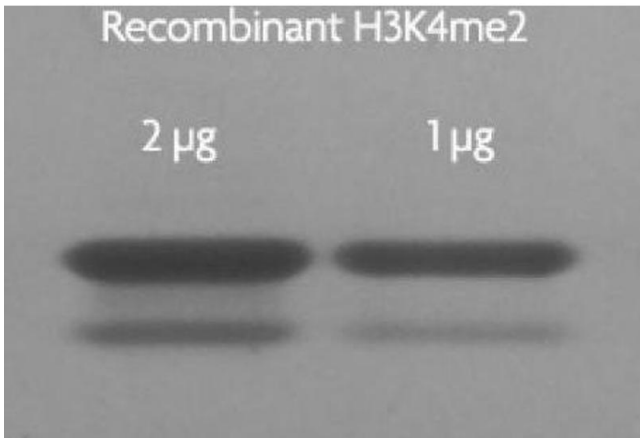
Mass Spectrometry

Image 1.



Mass Spectrometry

Image 2.



Western Blotting

Image 3. Recombinant Histone H3 dimethyl Lys4 analyzed by SDS-PAGE gel. SDS-PAGE analysis of 2 µg Recombinant Histone H3 dimethyl Lys4 (lane 1) and 1 µg Recombinant Histone H3 dimethyl Lys4 (lane 2).