

## Recombinant Human Nucleosome, H4K20me1 dNuc, Biotinylated

**Cat. No.** NUC-033    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Mononucleosomes assembled from recombinant human histones expressed in E. coli.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Description</b>      | Mononucleosomes assembled from recombinant human histones expressed in E. coli (two each of histones H2A, H2B, H3 and H4; accession numbers: H2A-P04908; H2B-O60814; H3.1-P68431; H4-P62805) wrapped by 147 base pairs of 601 positioning sequence DNA. Histone H4 (created by a proprietary synthetic method) contains monomethyl-lysine at position 20. The nucleosome is the basic subunit of chromatin. The 601 sequence, identified by Lowary and Widom, is a 147-base pair sequence that has high affinity for histone octamers and is useful for nucleosome assembly and contains a 5' biotin-TEG group. |
| <b>Form</b>             | Recombinant Human, H4K20me1 (27 µg protein weight, 50.0 µg DNA+protein) in 10 mM Tris HCl, pH 7.5, 25 mM NaCl, 1 mM EDTA, 2 mM DTT, 20% glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Molecular Mass</b>   | 200,980 Da                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Applications</b>     | Nucleosome, Recombinant Human, H4K20me1 are highly purified and are suitable for use as substrates in enzyme screening assays or for effector protein binding experiments.                                                                                                                                                                                                                                                                                                                                                                                                                                      |

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**Storage**

Stable for six months at -80°C from date of receipt. For best results, aliquot and avoid multiple freeze/thaws.

**Conjugation**

Biotin

**Western Blot Data**

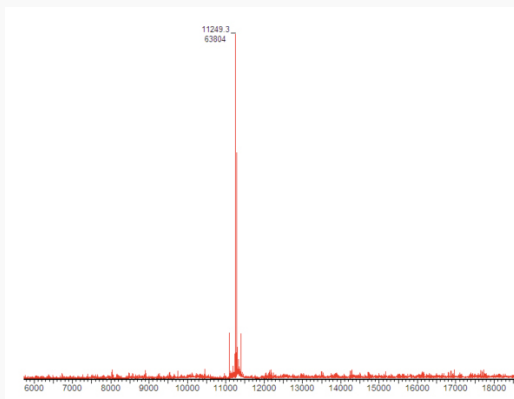

Western Analysis of Nucleosome, Recombinant Human, H4K20me1. Top Panel: Unmodified H4 (Lane 1) and H4K20me1 containing nucleosomes (Lane 2) were probed with an anti-H4K20me1 antibody and analyzed via ECL readout. Only the H4K20me1 sample produced a detectable signal. Bottom Panel: Detail from Coomassie stained protein gel showing unmodified nucleosomes (Lane 1) and H4K20me1 nucleosomes.

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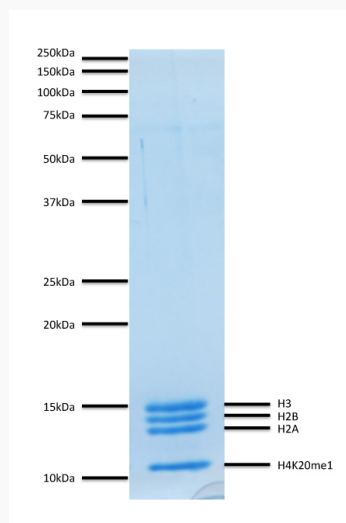
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## Mass Spec Data



Synthetic H4K20me1 protein analyzed by ESI-TOF mass spectrometry. Expected mass = 11250.1 Da. Determined mass = 11249.3 Da.

## Protein Gel Data



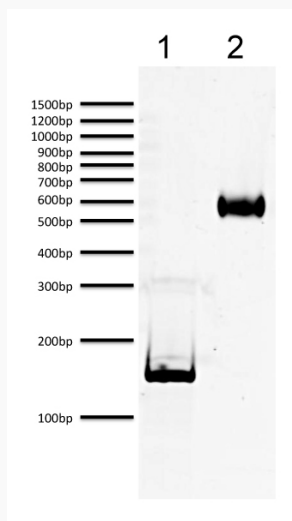
Coomassie stained PAGE gel of proteins in Nucleosome, Recombinant Human, H4K20me1 (2 g) to demonstrate the purity of the histones in the preparation. Sizes of molecular weight markers and positions of the core histones (H2A, H2B, H4K20me1 and H4) are indicated.

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## DNA Gel Data



Nucleosome, Recombinant Human, H4K20me1 run on a non-denaturing acrylamide gel and stained with ethidium bromide to visualize DNA. Lane 1: Free DNA extracted from nucleosomes (200 ng). Lane 2: Intact nucleosomes (400 ng).

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