

# Recombinant Human Nucleosome, H3K36me2 dNuc, Biotinylated

**Cat. No.** NUC-025    **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 H3 (created by a proprietary synthetic method) contains dimethyl-lysine at position 36. 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>             | Nucleosome, Recombinant Human, H3 K36Me2 (50 g total mass, DNA+protein, 27.3 g protein weight) in 10 mM Tris HCl, pH 7.5, 25 mM NaCl, 1 mM EDTA, 2 mM DTT, 20% glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Molecular Mass</b>   | 201,008 Da                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Applications</b>     | Nucleosome, Recombinant Human, H3 K36me2 are highly purified and are suitable for use as substrates in enzyme screening assays or for effector protein binding                                                                                                                                                                                                                                                                                                                                                                                                                                                |

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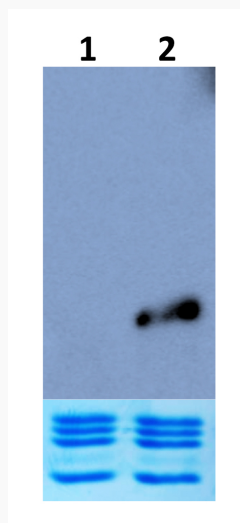
experiments.

**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 of  
NUC-025**


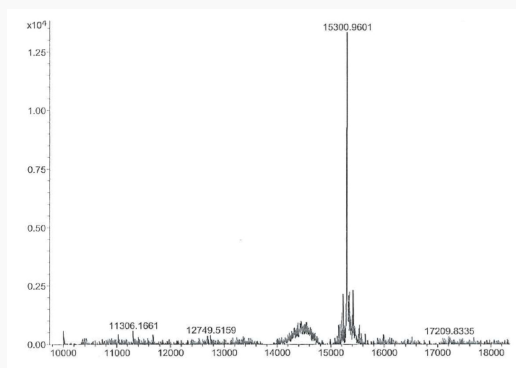
Western Analysis of Nucleosome, Recombinant Human, H3 K36me2. Top Panel: Unmodified H3 (Lane 1) and H3 K36me2 containing nucleosomes (Lane 2) were probed with an anti-H3 K36me2 antibody and analyzed via ECL readout. Only the H3 K36me2 sample produced a detectable signal. Bottom Panel: Detail from Coomassie stained gel showing wild type (Lane 1) or H3 K36me2 nucleosomes (Lane 2).

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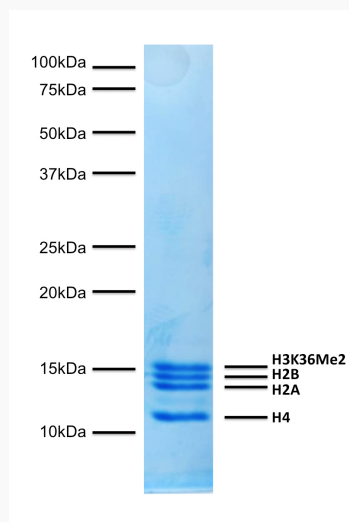
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### Mass Spec Data of NUC-025



Synthetic H3 K36me2 protein analyzed by ESI-TOF mass spectrometry. Expected mass = 15,300.9 Da. Determined mass = 15,300.96 Da.

### Protein Gel Data of NUC-025



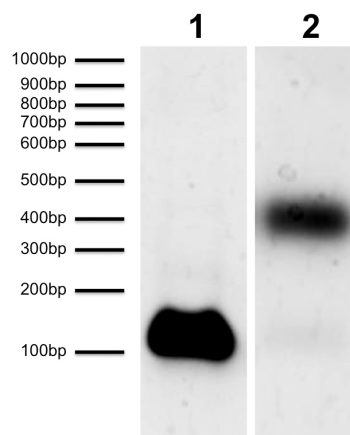
Coomassie stained PAGE gel of proteins in Nucleosome, Recombinant Human, H3 K36me2 (1  $\mu$ g) to demonstrate the purity of the histones in the preparation. Sizes of molecular weight markers and positions of the core histones (H2A, H2B, H3 K36me2 and H4) are indicated.

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# DNA Gel Data of NUC-025



Nucleosome, Recombinant Human, H3 K36me2 run on an agarose 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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