# Nucleosome, Recombinant Human, H3S10ph dNuc, Non-biotinylated

**Catalog No.** 16-1345
**Lot No.** 17333001
**Pack Size** 50 µg

## Product Description:

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 phosphorylated serine at position 10. The nucleosome is the basic subunit of chromatin. The 601 sequence, identified by Lowary and Widom, is a 147-base pair sequece that has high affinity for histone octamers and is useful for nucleosome assembly.


**Western Blot Data:** Western Analysis of Nucleosome, Recombinant Human, H3S10ph. **Top Panel:** Unmodified H3 (Lane 1) and H3S10ph containing nucleosomes (Lane 2) were probed with an anti-H3S10ph antibody and analyzed via ECL readout. Only the H3S10ph sample produced a detectable signal. **Bottom Panel**: Detail from Coomassie stained gel showing unmodified nucleosomes (Lane 1) and H3S10ph nucleosomes (Lane 2).

## Formulation:

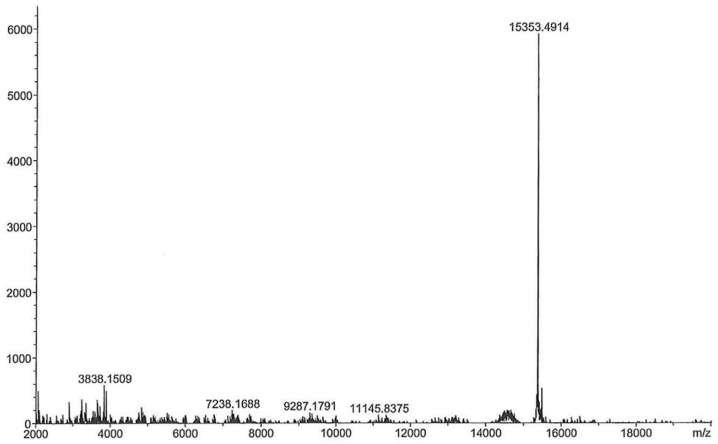
Recombinant H3S10ph mononucleosomes (27 µg protein weight, 50.0 µg DNA+protein) in 40.3µl 10 mM Tris-HCl pH 7.5, 1 mM EDTA, 25 mM NaCl, 2 mM DTT, & 20% glycerol. Concentration of nucleosomes is 6.19 µM. Nucleosome molecular weight = 200,332 Da.

## Storage and Stability:

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

## Application Notes:

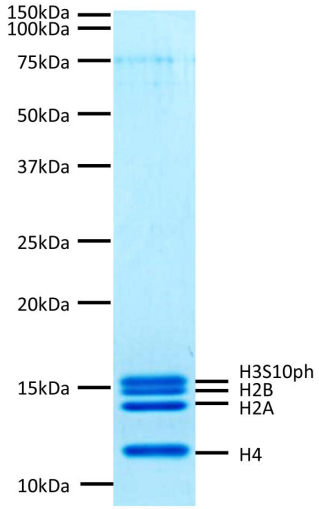
Nucleosome, Recombinant Human, H3S10ph are highly purified and are suitable for use as substrates in enzyme screening assays or for effector protein binding experiments.



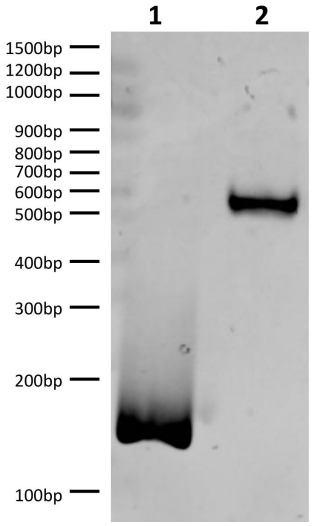

**Mass Spec Data:** Synthetic H3S10ph protein analyzed by ESI-TOF mass spectrometry. Expected mass = 15352 Da. Determined mass = 15353.5 Da.

## References Using this Product:

Lowary PT and J Widom (1998). *J Mol Biol* 276: 19-42.




**Protein Gel Data:** Coomassie stained SDS-PAGE gel of proteins in Nucleosome, Recombinant Human, H3S10ph (2 µg) to demonstrate the purity of the histones in the preparation. Sizes of molecular weight markers and positions of the core histones (H2A, H2B, H3S10ph and H4 are indicated.




**DNA Gel Data:** Nucleosome, Recombinant Human, H3S10ph examined by native PAGE and stained with ethidium bromide to visualize DNA.
**Lane 1:** Free DNA (200 ng). **Lane 2:** Intact Nucleosome, Recombinant Human, H3S10ph (250 ng).