

## Recombinant Human Nucleosome, H2AXS139phos dNuc, Biotinylated

**Cat. No.** NUC-039    **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 H2AX, H2B, H3 and H4; accession numbers: H2AX-P16104; H2BO60814; H3.1-P68431; H4-P62805) wrapped by 147 base pairs of 601 positioning sequence DNA. Histone H2AX (created by a proprietary synthetic method) contains phosphorylated-serine at position 139. 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, H2AXS139phos (27.4µg protein weight, 50 µg total weight) in µl of 10 mM Tris HCl, pH 7.5, 25 mM NaCl, 1 mM EDTA, 2 mM DTT, 20% glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Molecular Mass</b>   | 202,066.8 Da                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Applications</b>     | Nucleosome, Recombinant Human, H2AXS139phos dNucs are highly purified and are suitable for use as substrates in enzyme screening assays or for effector protein                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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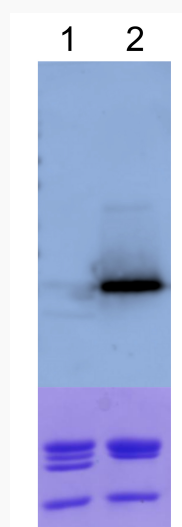
binding experiments. Nucleosome, Recombinant Human, H2AXS139phos dNucs does not contain free DNA which could alter assayed activities.

**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**


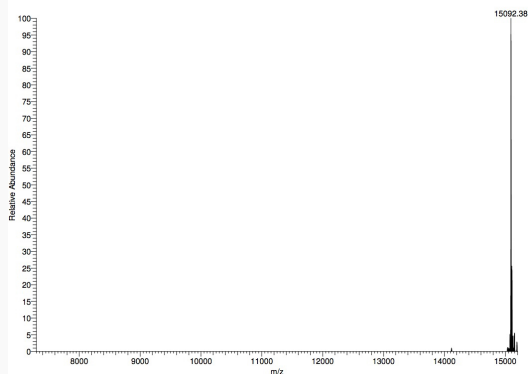
Western Analysis of Nucleosome, Recombinant Human, H2AXS139phos. Top Panel: Unmodified H2A (Lane 1) and H2AXS139phos containing nucleosomes (Lane 2) were probed with an anti-H2AXS139phos antibody and analyzed via ECL readout. Only the H2AXS139phos sample produced a detectable signal. Bottom Panel: Detail from Coomassie stained gel showing unmodified nucleosomes (Lane 1) and H2AXS139phos nucleosomes (Lane 2).

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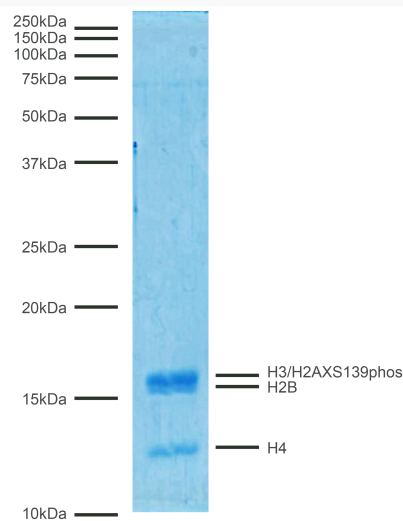
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## Mass Spec Data



H2AXS139phos protein analyzed by high resolution mass spectrometry. Expected mass = 15092.38 Da. Determined mass = 15,092.38 Da.

## Protein Gel Data



Coomassie stained PAGE gel of proteins in Nucleosome, Recombinant Human, H2AXS139phos (1 µg) to demonstrate the purity of the histones in the preparation.

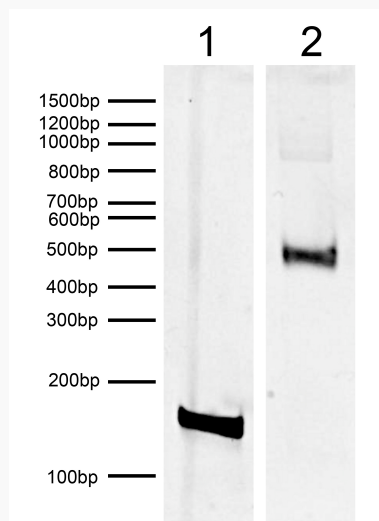
Sizes of molecular weight markers and positions of the core histones (H2AXS139phos, H2B, H3 and H4) are indicated

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### DNA Gel Data



Nucleosome, Recombinant Human, H2AXS139phos run on a native PAGE gel and stained with ethidium bromide to visualize DNA. Lane 1: Free DNA (100 ng). Lane 2: Intact nucleosomes (400 ng).

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