

## HeLa Mononucleosomes, Purified

<b>Catalog No</b>	16-0002	<b>Species</b>	Human
<b>Lot No</b>	23212020-01	<b>Source</b>	HeLa cells
<b>Pack Size</b>	50 µg	<b>Tag</b>	None
<b>Concentration</b>	4.6 µM	<b>MW</b>	214,000 Da

### DESCRIPTION

Human mononucleosomes purified from HeLa cells. The nucleosome is the basic repeating unit of chromatin, which consists of 150 base pairs of DNA wrapped around an octamer core of histone proteins (two each of H2A, H2B, H3, and H4).

### TECHNICAL INFORMATION

<b>Storage</b>	Stable for six months at -80°C from date of receipt. For best results, aliquot and avoid freeze/thaws
<b>Formulation</b>	0.99 mg/mL purified HeLa Mononucleosome in 50.8 µL 20 mM HEPES pH 7.5, 1 mM EDTA (26.9 µg protein, 50 µg DNA + protein)

### APPLICATION NOTES

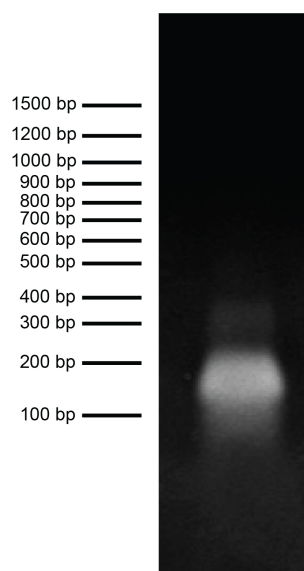
HeLa Mononucleosomes are suitable for use in enzyme assays such as acetylation or methylation, chromatin binding, or as a positive control in western blotting. Use 1-2 µg per reaction.

Molarity and molecular weight are estimated based on DNA size and account for the endogenous post-translational histone modifications.

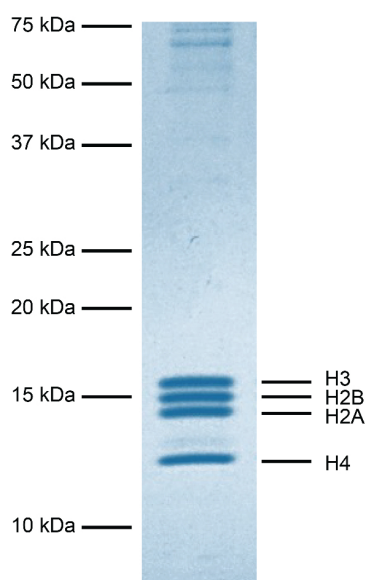
Note: despite the high purity of the preparation, a small amount of arginine methyltransferase (RMTase) activity may co-purify with the nucleosomes. If you are studying weak or low turnover HMTases, you can use AMI-1 to inhibit the endogenous RMTase activity.

### GENE & PROTEIN INFORMATION

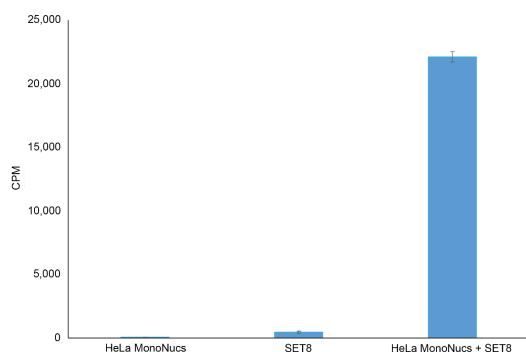
<b>UniProt ID</b>	H2A - P04908 (alt. names: H2A type 1-B/E, H2A.2, H2A/a, H2A/m) H2B - O60814 (alt. names: H2B K, HIRA-interacting protein 1) H3 - K7EMV3 H4 - P62805
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**FIGURE 1 DNA gel data.** DNA (2  $\mu$ g) was purified from HeLa Mononucleosomes and resolved via agarose gel to show the size of nucleosomal DNA compared to molecular weight markers (base pairs). Mononucleosomal DNA resolves at ~150 base pairs.



**FIGURE 2 Protein gel data.** Coomassie stained SDS-PAGE gel of proteins in HeLa Mononucleosomes (2  $\mu$ g) demonstrates the purity of histones in the preparation. Sizes of molecular weight markers and position of the core histones (H2A, H2B, H3, and H4) are indicated.



**FIGURE 3 Enzyme activity data.** HMTase assay with HeLa Mononucleosomes (1  $\mu$ g) and SET8 (HeLa Nucs + SET8; 1  $\mu$ g) using a standard radiometric filter binding assay protocol. Controls include the mononucleosomes alone (HeLa Nucs) or SET8 alone (SET8). SET8 is aa 1-352 of UniProt# Q9NQR1.