

HeLa Mononucleosomes, Purified



EpiCypher™

Catalog No. 16-0002
Lot No. 17325011
Pack Size 50 µg

Product Description:

Human mononucleosomes purified from HeLa cells. The nucleosome is the basic subunit of chromatin consisting of the histone octamer (two each of the four core histones, H2A, H2B, H3 and H4) wrapped by 147 base pairs of DNA.

Formulation:

Purified HeLa mononucleosomes (50 µg) at a concentration of 0.7 mg/ml (23.1 µg DNA + 26.9 µg protein) in of 71.5 µl of 20 mM HEPES, pH 7.5, 1 mM EDTA. * Molarity = ~3.27 µM. * MW = ~ 214,000 Da.

Concentration may differ from previous lots.

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:

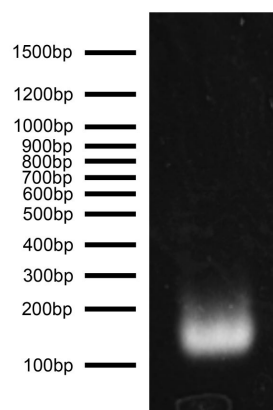
HeLa Mononucleosomes, Purified are suitable for use in enzyme assays such as acetylation or methylation, chromatin binding assays, or for use as a positive control in Western blotting. Use 1-2 µg per reaction.

*-Molarity and molecular weight are estimates based on DNA size and accounting for the endogenous post-translational histone modifications.

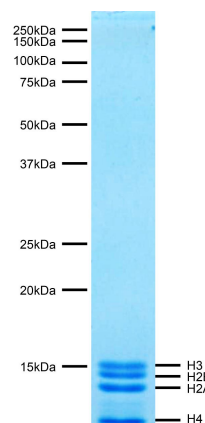
NB. Despite the high purity of the preparation, a small amount of arginine methyltransferase activity **may** co-purify with the nucleosomes. If you are studying weak or low turnover HMTases, you can use AMI-1 to inhibit the endogenous RMTase activity.

References:

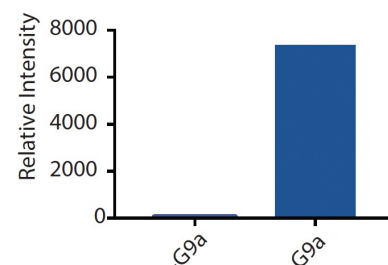
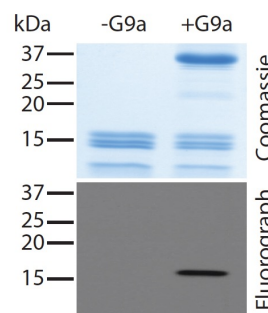
Kuo AJ et al (2011). *Mol Cell* 44: 609-620.
Matthews AG et al (2007). *Nature* 450: 1106-1110.
Shi X et al (2006). *Nature* 442: 96-99.



DNA Gel Data: DNA was purified from 0.5 µg HeLa Mononucleosomes and run on a 1% agarose gel to show the size of nucleosomal DNA compared to MW markers. Note that mononucleosomal DNA runs at ~150 base pairs.



Protein Gel Data: Coomassie stained SDS-PAGE gel of proteins in 2 µg of HeLa Mononucleosomes to demonstrate the purity of the histones in the preparations. Sizes of molecular weight markers and position of the core histones are indicated.



Histone Methyltransferase Data: HeLa Mononucleosomes were used in a radioactive histone methyltransferase assay with recombinant G9a. Radioactive SAM was incubated with HeLa Mononucleosomes in the absence (-) or presence (+) of recombinant G9a and run on an acrylamide gel. HMTase activity co-purifying with the nucleosomes is undetectable. **Left Top:** Coomassie stained gel. **Left Bottom:** autoradiogram of gel. **Right:** Densitometry quantification of autoradiogram.

This product is for *in vitro* research use only and is not intended for use in humans or animals.