

# HeLa Polynucleosomes, Purified



## EpiCypher®

**Catalog No** 16-0003

**Lot No** 20224013-20

**Pack Size** 50 µg

### Product Description:

Human polynucleosomes 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. HeLa Polynucleosomes are predominantly trimers, with some dimers and tetramers.

### Formulation:

Purified HeLa Polynucleosomes (50 µg) at a concentration of 1 mg/mL (24.8 µg DNA + 25.2 µg protein) in of 50 µL of 20 mM HEPES pH 7.5, 1 mM EDTA. Molarity = ~4.34 µM. MW = ~230,000 Da. Molarity and MW are estimates based on average DNA size (including linker) and accounting for endogenous post-translational histone modifications.

### 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:

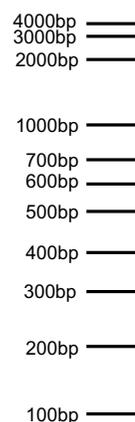
HeLa Polynucleosomes are suitable for use in enzyme assays such as acetylation or methylation, chromatin binding, or for use as a positive control in western blotting. Recommended Usage: 1-2 µg per reaction.

### References:

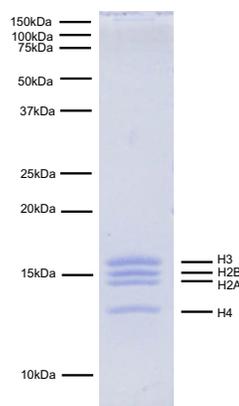
Kuo AJ et al (2011) *Mol Cell* 44:609-620.

Matthews AG et al (2007) *Nature* 450:1106-1110.

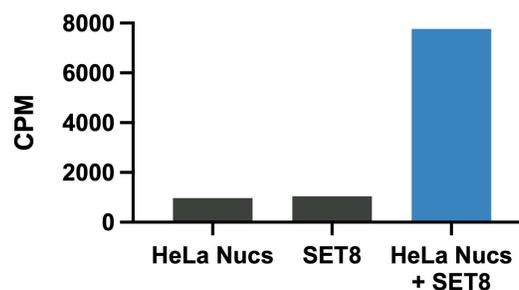
Shi X et al (2006) *Nature* 442:96-99.



**DNA Gel Data:** DNA (2 µg) was purified from HeLa Polynucleosomes and resolved via agarose gel to show the size of nucleosomal DNA compared to molecular weight markers (base pairs). Dimers resolve at ~350 bp, trimers at 475 bp, and tetramers at ~625 bp.



**Protein Gel Data:** Coomassie stained PAGE gel of proteins (2 µg) in HeLa Polynucleosomes to demonstrate the purity of histones in the preparation. Sizes of molecular weight markers (kDa) and position of the core histones are indicated.



**Enzyme Activity Data:** HeLa Polynucleosomes (1 µg) used in an HMTase assay with 1 µg SET8 (HeLa Polynucleosomes + Set8) using a standard radiometric filter binding assay protocol. Controls include the Polynucleosomes alone (HeLa Polynucleosomes) or SET8 alone (SET8). SET8 is aa 1-352 of UniProt# Q9NQ1

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