HeLa Polynucleosomes, Purified

Catalog No. 16-0003
Lot No. 15263007
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 0.8 mg/ml (24.8 µg DNA + 25.2 µg protein) in of 62.5 µl of 20 mM HEPES, pH 7.5, 1 mM EDTA.
* Molarity = ~3.5µM. * MW = ~ 230,000 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 Polynucleosomes 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 average DNA size (including linker) and accounting for the endogenous post-translational histone modifications.
NB. Despite the high purity of the preparation, a small amount of arginine methyltransferase activity co-purifies with the nucleosomes. If you are studying weak or low turnover HMTases, you can use AMI-1 to inhibit the endogenous RMTase activity.

DNA Gel Data: DNA (1 µg) was purified from HeLa Polynucleosomes and run on an agarose gel to show the size of nucleosomal DNA compared to molecular weight markers (base pairs).

Protein Gel Data: Coomassie stained PAGE gel of proteins (1.5 µg) in HeLa Polynucleosomes to demonstrate the purity of the histones in the preparations. Sizes of molecular weight markers (kDa) and position of the core histones are indicated.

Enzyme Activity Data: HeLa Polynucleosomes, Purified (1 µg) used in an HMTase assay with 1 µg SET8 (Poly + Set8) using a standard radiometric filter binding assay protocol. Controls include the Polynucleosomes alone (Poly) or SET8 alone (SET8). The assay was done in duplicate and averaged, with the standard deviation displayed as error bars.

References: