

Nucleosome K-MetStat & OncoStat Panel

Cat. No. NUC-066 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	A 96-well plate containing 24 unique mononucleosomes assembled from recombinant human histones expressed in E. coli.
Source	E.coli
Description	A 96-well plate containing 24 unique mononucleosomes assembled from recombinant human histones expressed in E. coli (two each of histones H2A, H2B, H3 and H4; accession numbers: H2A-P04908, H2B-O60814, H3.1-P68431/H3.2-Q71DI3/H3.3-P84243, H4-P62805). Single and combinatorial histone post-translational modifications (PTMs) are created using a proprietary synthetic method. The nucleosomes are wrapped by 147 base pairs DNA containing a central 601-positioning sequence (Lowary and Widom 1998 J Mol Biol. (1):19-42) with a 5' biotin-TEG group.
Form	Purified recombinant mononucleosomes individually stored in a 96 well plate (1.5 µg nucleosome at 1.5 µM per well) in 5 µL of nucleosome storage buffer (10 mM Tris-HCl pH 7.5, 1 mM EDTA, 25 mM NaCl, 2 mM DTT, & 20% glycerol).
Molecular Mass	~200,000 Da
Applications	The access to epigenetic diversity in a physiological nucleosome context enables broad end-user applications, including nucleosome binding studies (e.g. chromatin reader binding preferences, see application data below for example using HP1β CHD), enzyme screening assays (e.g. identification of preferred substrates), and antibody specificity testing (e.g. for applications that require antibody specificity in a

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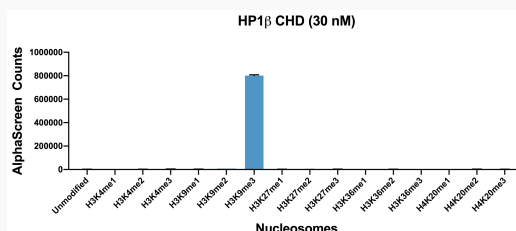
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nucleosome, rather than histone peptide context). The biotin group on the DNA facilitates pull-down experiments. Mononucleosomes do not contain free DNA which could alter assayed activities.

Storage

Stable for six months at -80°C from date of receipt.

K-MetStat & OncoStat Nucleosome Panel Application Data



GST-tagged HP1β Chromodomain 1 (30 nM) was assayed in AlphaScreen (Perkin Elmer) to measure binding to nucleosomes in the K-MetStat Nucleosome Panel (10 nM). HP1β showed strong, specific binding to trimethylated lysine 9 of histone H3 (H3K9me3), consistent with its reported binding preference.

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