Nucleosome, Recombinant Human, H3K27bu dNuc, Biotinylated

Catalog No 16-0384
Lot No 21195003-01
Pack Size 50 µg

Product Description:

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; H3.2-Q71DI3*); H4-P62805) wrapped by 147 base pairs of 601 positioning sequence DNA. Histone H3 (created by a proprietary semi-synthetic method) contains butyryl-lysine at position 27. The nucleosome is the basic subunit of chromatin. The 147 bp 601 sequence, identified by Lowary and Widom [1], has high affinity for histone octamers and is useful for nucleosome assembly. The DNA contains a 5' biotin-TEG group. *H3K27bu has a Cys to Ala substitution at position 110.

Formulation:

H3K27bu dNuc (27.4 µg protein weight, 50 µg DNA + protein) in 53.8 µL 10 mM Tris HCl pH 7.5, 25 mM NaCl, 1 mM EDTA, 2 mM DTT, 20% glycerol. Molarity = 4.65 µM. MW = 199,903.6 Da

Storage and Stability:

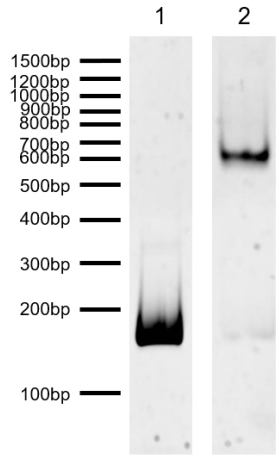
Stable for six months at -80°C from date of receipt. For best results, aliquot and avoid multiple freeze/thaws.

Application Notes:

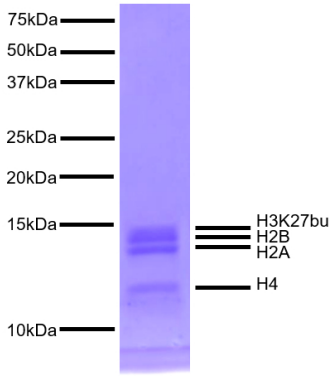
H3K27bu dNuc is highly purified and suitable for use as a substrate in enzyme screening assays or for effector protein binding experiments.

References:

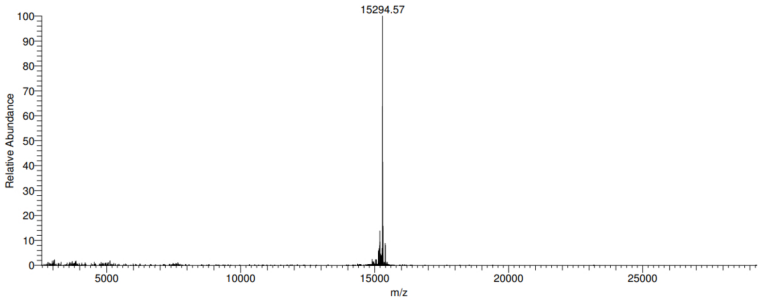
[1] Lowary PT and Widom J (1998) *J Mol Biol* 276:19-42.



DNA Gel Data: H3K27bu dNuc resolved via native PAGE gel and stained with ethidium bromide to visualize DNA. **Lane 1:** Free DNA (EpiCypher 18-0005; 100 ng). **Lane 2:** Intact H3K27bu nucleosomes (400 ng).



Protein Gel Data: Coomassie stained PAGE gel of proteins in H3K27bu dNuc (1 µg) to demonstrate the purity of histones in the preparation. Sizes of molecular weight markers and positions of the core histones (H2A, H2B, H3K27bu and H4) are indicated.



Mass Spec Data: Synthetic H3K27bu histone analyzed by high resolution mass spectrometry. Expected mass = 15294.77 Da. Determined mass = 15,294.57 Da.

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