

dCypher® Nucleosome Full Panel

Catalog No. 16-9001
Lot No. 19070001
Pack Size 96 well plate



EpiCypher®

Product Description:

A 96-well plate containing 77 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 or 187 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.

All nucleosomes in the panel are subjected to EpiCypher's rigorous quality control metrics, including: ESI-TOF mass spectrometry analysis of the modified proteins; SDS-PAGE to confirm octamer composition and purity; native PAGE to confirm nucleosome assembly and lack of free DNA; and Western blot analysis of the PTM, histone mutation, or histone variant (if applicable). For the full list of nucleosomes in the panel, including individual catalog numbers of full-size (50 µg) products, see the associated excel sheet on the product page at www.epicypher.com.

	1	2	3	4	5	6	7	8	9	10	11	12
A	147x601 rNuc (H3.1 unmod.)	H3K9me3	H3K79me2	H3K9cr	H3K27ac	H4K16ac	H3R2me1	H4R3me1		H3.3 WT	H2AX	
B	H3.1ND32 (tailless)	H3K27me1	H3K79me3	H3K14ac	H3K27bu	tetraAc-H4 (K5/8/12/16ac)	H3R2me2a	H4R3me2a		H3.3K4M	H2AXS139ph	
C	H4ND15 (tailless)	H3K27me2	H4K20me1	H3K18ac	H3K27cr	tetraAc-H3 / H4	H3R2me2s	H4R3me2s		H3.3K9M	H2AZ.1	
D	H3K4me1	H3K27me3	H4K20me2	H3K18bu	H3K27ac + S28ph	H4K20ac	H3R8me1	H2AK119ub		H3.3K27M	H2AZ.2	
E	H3K4me2	H3K36me1	H4K20me3	H3K18cr	H3K36ac	tetraAc-H2A (K5/8/13/15ac)	H3R8me2a	H2BK120ub		H3.3G34R	187x601 rNuc (linker DNA)	
F	H3K4me3	H3K36me2	H3K4ac	tetraAc-H3 (K4/9/14/18ac)	H4K5ac	H2AR3me1	H3R8me2s	H3R2,8,17cit		H3.3G34V	Hemi-me (linker DNA)	
G	H3K9me1	H3K36me3	H3K9ac	H3K4me3 + K9/14/18ac	H4K8ac	H2AR3me2a	H3R17me1	H3S10ph		H3.3G34W		
H	H3K9me2	H3K79me1	H3K9bu	H3K23ac	H4K12ac	H2AR3me2s	H3R17me2a			H3.3K36M		

Key:

Subpanel	#	Control	Control Well
dNuc	63	147x601 Unmodified rNuc & tailless nucleosomes	A-1, B-1, C-1
oncoNucs	8	H3.3 WT	A-10
vNucs	4	H3.1 rNuc	A-1
methyl DNA Nucs	2	187x601 rNuc	E-11
TOTAL	77	additional empty wells for user controls	

dCypher Nucleosome Full Panel plate layout. The full panel includes three unmodified and tailless nucleosome controls, 60 designer nucleosomes (dNucs: single and combinatorial PTMs), seven nucleosomes with H3.3 oncogenic mutations and a wild-type control (oncoNucs), four histone variant nucleosome (vNucs) and 2 nucleosomes with extended 187 bp linker DNA template, either unmodified or methylated (methyl DNA Nucs).

Formulation:

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). MW = ~200,000 Da

Storage and Stability:

Stable for six (6) months at -80°C from date of receipt. Avoid multiple freeze/thaws.

