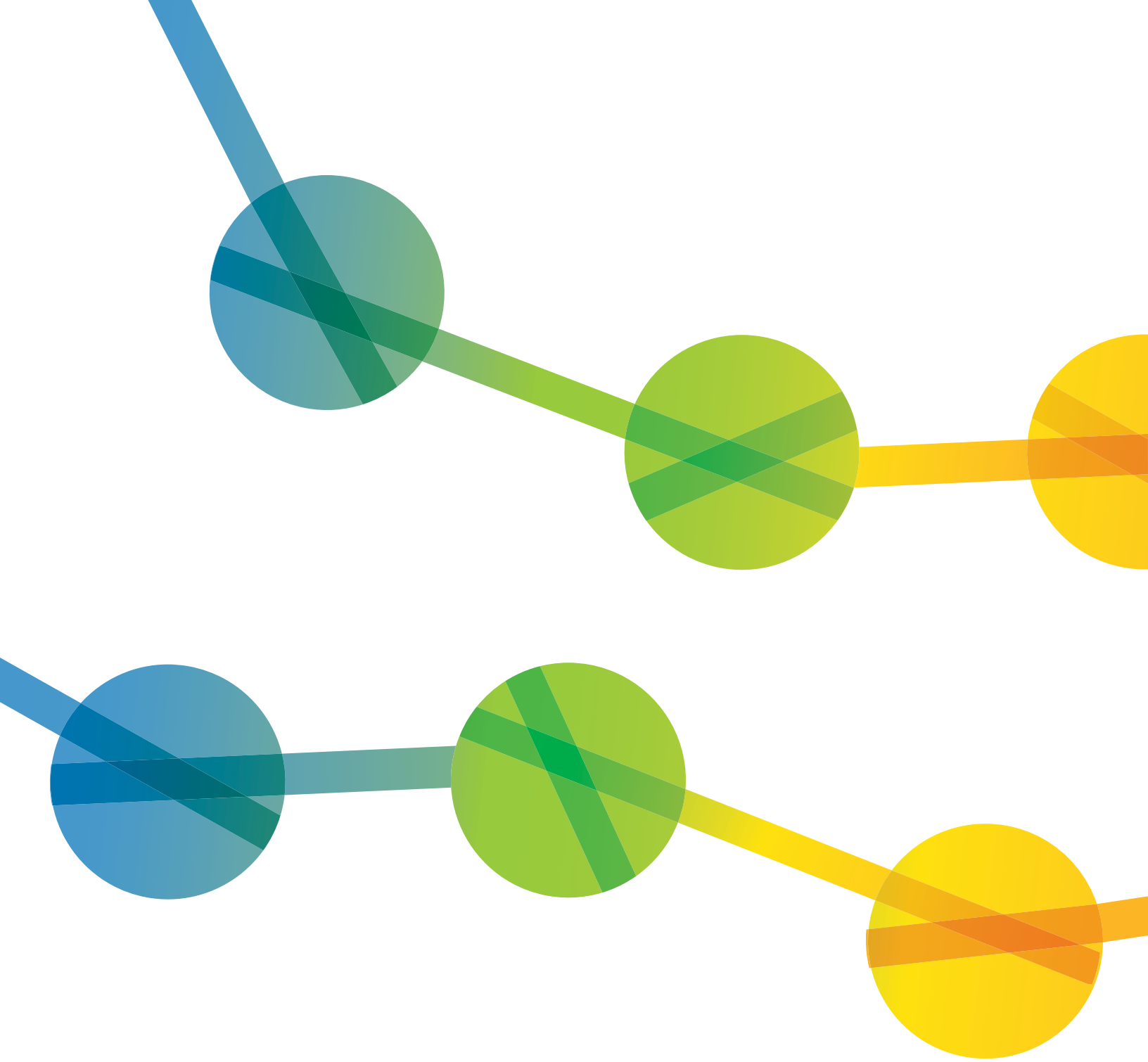


EpiCypher®

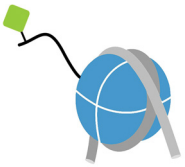
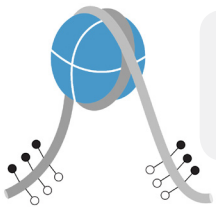
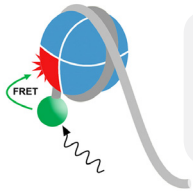
Bringing Epigenetics to Life

Functionalized Recombinant Nucleosomes

For Drug Discovery and Chromatin Research

Functionalized Nucleosome Substrates for Drug Discovery and Chromatin Research

Using nucleosome substrates in drug discovery assays is a dramatic improvement over peptides, unlocking access to challenging targets.

	Features	Benefits
	**dNucs™** *Designer Nucleosomes* • Contain physiological histone PTMs • 601 Nucleosome positioning sequence (biotinylated or non-biotinylated)	• Suitable for enzyme assays and high-throughput screening • Suitable for protein-protein interaction studies involving the modification of interest
	**rNucs™** *Recombinant Nucleosomes* • Fully recombinant human histones • 601 Nucleosome positioning sequence (biotinylated or non-biotinylated)	• Devoid of post-translational modifications • Suitable for enzyme assays, inhibitor testing and high-throughput screening
	**oncoNucs™** *Oncogenic Nucleosomes* • Contains specific mutations associated with cancer • 601 Nucleosome positioning sequence (biotinylated or non-biotinylated)	• Study effects of mutations on enzyme activity • Suitable for high-throughput screening and inhibitor testing
	**vNucs™** *Histone Variant Nucleosomes* • Includes one of several histone variants • 601 Nucleosome positioning sequence (biotinylated or non-biotinylated)	• Study effects of histone variants on enzyme activity • Suitable for high-throughput screening and inhibitor testing
	**methyl DNA Nucs** • Hemi-methylated 601 Nucleosome positioning sequence • Methylated DNA can be assembled on modified octamers upon request	• Study effects of DNA methylation on enzyme activity • Suitable for enzyme assays, inhibitor testing and high-throughput screening
	**EpiDyne®** *Chromatin Remodeling Assay Substrates* • Nucleosome positioning sequence engineered for remodeling assays • Functionalized DNA or histones to enable HTS assay development	• Suitable for high-throughput screening and inhibitor testing • Can be used for structural studies
	**SNAP-ChIP® Panels** • DNA-barcoded 601 Nucleosome positioning sequence • Contain physiological histone PTMs	• Quantitative spike-in controls for ChIP • Antibody specificity testing • Monitor experimental variability
	**versaNuc™** *Custom Nucleosome Development* • Low cost, versatile custom nucleosome synthesis service • Choose from a variety of PTMs or nucleosomal DNA	• Make nucleosome panels with single or combinatorial PTMs • Create unique combinations of modifications on histones or DNA templates specific to your research

dNucs: Designer Recombinant Nucleosomes With PTMs (Biotinylated)*

dNucs
Histone Lysine Methylation

H3K4me1	16-0321	20/50 µg
H3K4me2	16-0334	20/50 µg
H3K4me3	16-0316	20/50 µg
H3K9me1	16-0325	50 µg
H3K9me2	16-0324	20/50 µg
H3K9me3	16-0315	20/50 µg
H3K27me1	16-0338	50 µg
H3K27me2	16-0339	50 µg
H3K27me3	16-0317	20/50 µg
H3K36me1	16-0322	50 µg
H3K36me2	16-0319	20/50 µg
H3K36me3	16-0320	20/50 µg
H3K79me1	16-0367	50 µg
H3K79me2	16-0368	50 µg
H3K79me3	16-0369	50 µg
H4K12me1 New!	16-0393	50 µg
H4K20me1	16-0331	50 µg
H4K20me2	16-0332	50 µg
H4K20me3	16-0333	50 µg
H3K4me3,K9,14,18ac	16-0335	50 µg

* Non-biotinylated versions of many products available. Please inquire.

dNucs
Other PTMs

H2AUb*	16-0020	50 µg
H2AK119ub	16-0363	50 µg
H2BK120ub	16-0370	50 µg
H3R2,8,17cit	16-0362	50 µg
H3S10ph	16-0345	50 µg

* *Enzymatically-modified; contains ubiquitination at H2AK13/15 and H2AK119.*

dNucs
Histone Arginine Methylation

H2AR3me1	16-0359	50 µg
H2AR3me2a	16-0360	50 µg
H2AR3me2s New!	16-0361	50 µg
H3R2me1	16-0340	50 µg
H3R2me2a	16-0341	50 µg
H3R2me2s	16-0355	50 µg
H3R8me1 New!	16-0379	50 µg
H3R8me2a New!	16-0380	50 µg
H3R8me2s New!	16-0381	50 µg
H3R17me1 New!	16-0382	50 µg
H3R17me2a New!	16-0375	50 µg
H4R3me1	16-0356	50 µg
H4R3me2a New!	16-0357	50 µg
H4R3me2s	16-0358	50 µg

dNucs
Histone Acylation

H2AK5,9,13,15ac	16-0376	50 µg
H3K4ac	16-0342	50 µg
H3K9ac	16-0314	20/50 µg
H3K9bu	16-0371	50 µg
H3K9cr	16-0351	50 µg
H3K14ac	16-0343	50 µg
H3K18ac	16-0372	50 µg
H3K18bu	16-0373	50 µg
H3K18cr	16-0337	50 µg
H3K23ac	16-0364	50 µg
H3K27ac	16-0365	20/50 µg
H3K27ac,S28phos New!	16-0385	50 µg
H3K27bu New!	16-0384	50 µg
H3K27cr New!	16-0383	50 µg
H3K36ac New!	16-0378	50 µg
H4K20ac New!	16-0377	50 µg
H4K5ac	16-0352	50 µg
H4K8ac	16-0353	50 µg
H4K12ac	16-0312	50 µg
H4K16ac	16-0354	50 µg
H3K4,9,14,18ac	16-0336	50 µg
H3K4me3,K9,14,18ac	16-0335	50 µg
H3K4,9,14,18ac/H4K5,8,12,16ac	16-0374	50 µg New!
H4K5,8,12,16ac	16-0313	50 µg

Other Recombinant Nucleosomes

oncoNucs
AA Substitutions Implicated in Cancer

H3.3K4M, biotinylated	16-0349	50 µg
H3.3K9M, biotinylated	16-0350	50 µg
H3.3K27M, biotinylated	16-1323	50 µg
H3.3G34R, biotinylated	16-0346	50 µg
H3.3G34V, biotinylated	16-0347	50 µg
H3.3G34W, biotinylated	16-0348	50 µg
H3.3K36M, biotinylated	16-0344	50 µg

methyl DNA Nucs

Mononucleosomes, Hemi-methylated, Biotinylated	16-2003	50 µg
Mononucleosomes, Hemi-methylated	16-2103	50 µg
Mononucleosomes, 187x601 DNA, Biotinylated	16-2004	50 µg
Mononucleosomes, 187x601 DNA	16-2104	50 µg

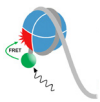
vNucs
Histone Variants

H2AX, biotinylated	16-0013	50 µg
H2AZ.1, biotinylated	16-0014	50 µg
H2AZ.2, biotinylated	16-0015	50 µg
H3.3, biotinylated	16-0011	50 µg
H3.3, non-biotinylated	16-0012	100 µg
H2AXS139phos, biotinylated	16-0366	50 µg

rNucs
Human Recombinant, No PTMs

Mononucleosomes, biotinylated	16-0006	50 µg
Mononucleosomes, non-biotinylated	16-0009	100 µg

Recombinant Nucleosome Remodeling Substrates



EpiDyne®
Monitor Nucleosome Remodeling *in vitro*

EpiDyne® FRET Nucleosome Remodeling Assay Substrate	16-4201	50 µg

EpiDyne® Nucleosome Remodeling Assay Substrate ST601-GATC1	16-4101	50 µg

Custom nucleosome synthesis available.
Please email us at info@epicypher.com for additional information and pricing or complete a Request for Quote form on our website.

Functionalized Nucleosome Substrates for Drug Discovery and Chromatin Research

EpiCypher makes recombinant modified nucleosomes affordable and accessible

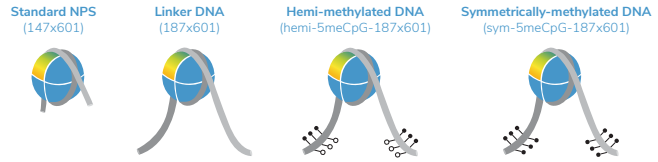
versaNuc™ - a low cost custom nucleosome development solution

Access unprecedented epigenetic diversity without breaking your budget -- versaNucs start at only $400.

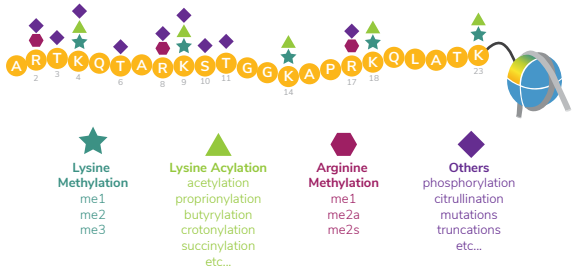
Applications

- Create custom nucleosome panels carrying single or combinatorial modifications on histones or DNA
- Study effects of combinations of epigenetic marks and understudied PTMs on enzyme activity or chromatin binding
- Identify optimal nucleosome substrates for enzyme studies and inhibitor development.

Step 1:
Pick Your Nucleosomal DNA
In-stock biotinylated DNAs shown. Inquire for custom DNAs.



Step 2:
Choose your histone H3 PTMs
Completely customizable single & combinatorial PTMs from H3R2 up to H3K23!



Step 3:
Design your panel

More info: epicypher.com/versanuc

dCypher® Nucleosome Panels

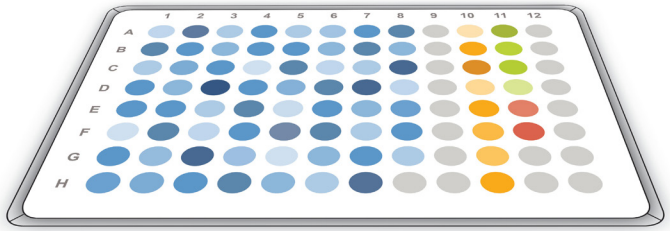
dCypher Nucleosome Panels provide an easy to use form factor to accelerate your research.

- Single and combinatorially-modified nucleosomes
- Nucleosome panels are provided in 96-well plate
- Full diversity or focused panel sets are available to fit your research needs

Applications

- Binding domain protein assays
- Enzyme activity assays
- Antibody specificity validation

Microtitre plate-based nucleosome panels for convenient access to over 75 unique nucleosomes



dCypher Nucleosome Panels Available

Panel	Catalog No.
Full Nucleosome Panel	16-9001
K-MetStat & OncoStat Panel	16-9002
R-MetStat Panel	16-9004
K-AcylStat Panel	16-9003

ORDERING INFO

Let's discuss your project
sales@epicypher.com

For more information
epicypher.com/nucleosomes

To place an order
sales@epicypher.com

SNAP-ChIP spike-in Panels
epicypher.com/snap-chip

Coming Soon
SNAP-ChIP R-MetStat panel

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