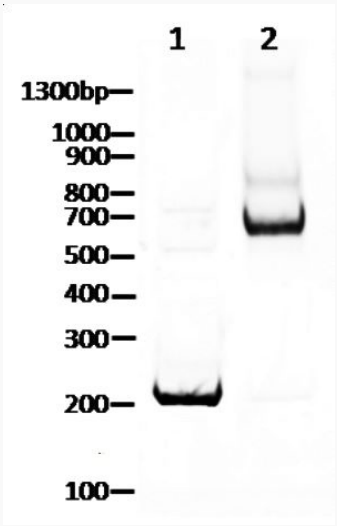
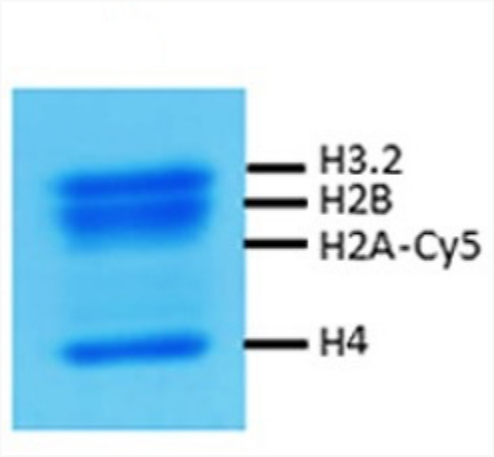
Nucleosome Remodeling Assay Substrate

Cat. No. NUC-058 **Lot. No.** (See product label)

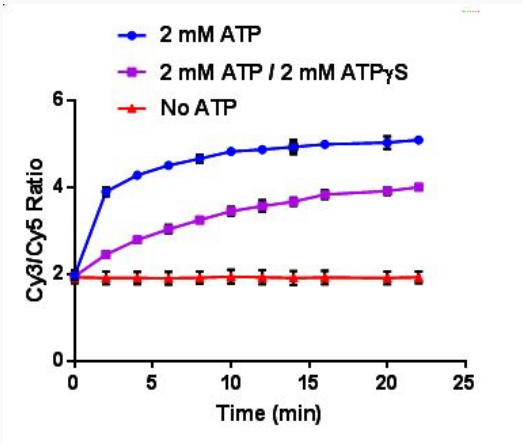
SPECIFICATION

Product Overview	Mononucleosomes assembled from recombinant human histones expressed in E. coli.
Source	E.coli
Description	Mononucleosomes assembled from recombinant human histones expressed in E. coli (two each of histones H2A-Cy5, H2B, H3.2 and H4; accession numbers: H2A-P04908; H2B-O60814; H3.2-Q71DI3; H4-P62805) wrapped with a 207 base-pair 5' Cy3-conjugated DNA sequence that includes the Widom 601 nucleosome positioning element, with an added GATC motif. H2A has a Thr to Cys substitution at residue 120, the cysteine where Cy5 is conjugated. H3.2 has a Cys to Ala substitution at residue 110.
Form	Purified recombinant mononucleosomes, 50 g (DNA + protein weight) in 10 mM Tris-HCl pH 7.5, 25 mM NaCl, 1 mM EDTA, 2 mM DTT, 20% glycerol.
Molecular Mass	242,900 Da
Applications	This product is a template for nucleosome remodeling enzymes (e.g. ACF Remodeling Enzyme Complex) using Cy3/Cy5 FRET, or using the restriction enzyme DpnII to determine accessibility of GATC which is masked in its native configuration (prior to remodeling).
Storage	Stable for six months at -80°C from date of receipt. For best results, aliquot and avoid multiple freeze/thaws.

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DNA Gel Data	 Free DNA and Mononucleosomes run on a 6% polyacrylamide gel and stained with ethidium bromide to visualize DNA. Lane 1: Free DNA (Cy3-ST601-GATC1 DNA, 200 ng). Lane 2: Intact EpiDyne-FRET nucleosomes (370 ng). Note absence of free DNA in "Nuc", indicating all DNA complexed with histones.
Protein Gel Data	 Coomassie stained PAGE gel of proteins in EpiDyne™ Nucleosome Remodeling

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	Assay Substrate ST601-GATC1 (FRET) to demonstrate histone purity. Sizes of the histones are indicated. N.B. Cy5 conjugation decreases mobility of H2A.
Nucleosome Remodeling Data	 RSC/ATP-dependent chromatin remodeling reaction. EpiDyne-FRET nucleosomes (20 nM) were incubated with RSC chromatin remodeler in the presence or absence of 2 mM ATP/ATPγS. Upon the addition of ATP, reactions were immediately read in an Envision Multilabel plate reader (PerkinElmer). Data are presented as the mean ±SD of the Cy3/Cy5 ratio (N=6).

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