EpiDyne® Nucleosome Remodeling Assay Substrate ST601-GATC1

Catalog No. 16-4101
Lot No. 17004001
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; H3.1-P68431; H4-P62805) wrapped by provided 217 base pair DNA sequence that includes the 601 sequence with and added GATC.

DNA Gel Data: Free DNA (DNA, 200 ng) and EpiDyne Nucleosome Remodeling Assay Substrate ST601-GATC1 (Nuc, 370 ng) run on an acrylamide gel and stained with ethidium bromide to visualize DNA.

Formulation:
Purified recombinant mononucleosomes 1.70 mg/ml (DNA + protein weight) in 29.4 µl of 10mM Tris-HCl pH 7.5, 25 mM NaCl, 1 mM EDTA, 2 mM DTT, 20% glycerol. MW = 242,900 Da. Molarity = 7.00 µM.

Protein Gel Data: Coomassie stained PAGE gel of proteins in EpiDyne Nucleosome Remodeling Assay Substrate ST601-GATC1 (2 µg) demonstrates the purity of the histones in the preparation. Sizes of molecular weight markers and positions of the core histones (H2A, H2B, H3 and H4) are indicated.

Storage and Stability:
Stable for six (6) months at -80°C from date of receipt. For best results, aliquot and avoid multiple freeze/thaws.

Application Notes:
This product is a control for nucleosome sliding assays using DpnII to determine accessibility of GATC.

DNA Sequence:
CTAGGAAATTATCAGAATTCGGGTGCTGGGCGGCGGATCGAATTGGTCTG
TAGACAGCTCTAGCCACCGCTTAAACCCGACCTAGCGCGCTGTCCCG
CGTTTTAACCAGGGATTACCTCCTAGCTCCAGGCACTGTT
CAGATATATACATCGATGATGATGGATGATGGATGATGGATGATGGATGGA
TGATGATGGATGATGATGGATGATGATGGATGAAGCTTTAGG

Nucleosome Remodeling Data: RSC/ATP-dependent nucleosome remodeling reaction in the presence of DpnII restriction enzyme. EpiDyne Nucleosome Remodeling Assay Substrate ST601-GATC1 nucleosomes were incubated with (10 nm) or without RSC remodeler for up to two hours in the presence of 2 mM ATP and 50U of DpnII. Samples were quenched at specified intervals and run on 8% native PAGE gel.

References:

This product is for in vitro research use only and is not intended for use in humans or animals.

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