EpiDyne® Remodeling Assay Substrate DNA ST601-GATC1

Catalog No	18-4101	**Species**	Human
Lot No	22175003-03	**Source**	Synthetic DNA
Pack Size	50 µg	**Tag**	None
Concentration	N/A	**MW**	133,958.56 Da

DESCRIPTION

EpiDyne® Remodeling Assay Substrate DNA ST601-GATC1 is a 217 base-pair double-stranded DNA fragment. The sequence includes an upstream 6 bp linker, the 145 bp ST601 nucleosome positioning sequence, identified by Lowary and Widom [1], and a downstream 66 bp linker (hereby named 6-N-66 DNA). The DNA also includes a 3' acceptor sequence to accommodate the histone octamer subsequent to remodeling. This positive control has a DpnII restriction site within the 601 sequence. When paired with the negative control (EpiCypher 18-4100), these controls illustrate the migration range for the Restriction Enzyme Assay. For more information, see the EpiDyne Nucleosome Remodeling Assay Tech Note: epicypher.com/resources./technical-notes/

TECHNICAL INFORMATION

Storage	Stable for 2 years at -20°C from date of receipt. After resuspending, aliquots should be stored at -80°C.
Formulation	50 µg lyophilized ST601-GATC1 DNA.

APPLICATION NOTES

ST601-GATC1 DNA is useful as a positive control for restriction enzyme accessibility nucleosome remodeling assays using the Biotinylated EpiDyne Remodeling Assay Substrate (EpiCypher 16-4101). A DpnII restriction enzyme site (GATC in red, below) and the naturally occurring MfeI restriction site (AATTGG in bold, below) are present within the 601 sequence.

DNA SEQUENCE

GAATTCATCAGAATCCCGGTGCCGAGGCC**GATC****AATTGG**TCGTAGACAGCTCTAGCACCGCTTAAACGCACGTACGCGCTG
TCCCCCGCGTTTTAACCGCCAAGGGGATTACTCCCTAGTCTCCAGGCACGTGTCAGATATATACATCGATGATGATGGATAG
ATGGATGATGGATGGATGGATGATGATGGATGAATAGATGGATGGATGAAGCTT

REFERENCES

[1] Lowary & Widom. *J. Mol. Biol.* (1998). PMID: 9514715

VALIDATION DATA

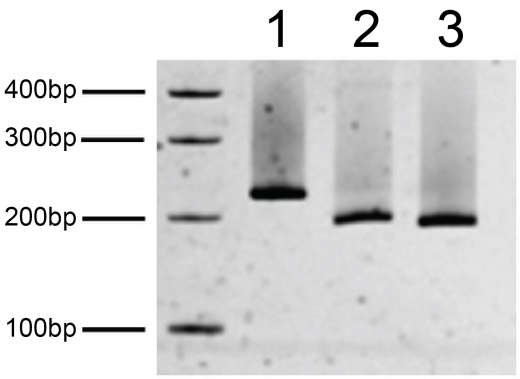

FIGURE 1: **DNA gel data.** ST601-GATC1 6-N-66 DNA resolved via native PAGE gel and stained with ethidium bromide to visualize DNA. **Lane 1:** Free DNA (100 ng). **Lane 2:** Free DNA incubated with 2U DpnII for 3 hr at 37°C (100 ng). **Lane 3:** Free DNA incubated with 2U MfeI for 3 hr at 37°C (100 ng). Migration patterns of DNA molecular weight markers are indicated.