PRODUCT NAME 5-hmC, 5-mC & cytosine DNA standard pack		
Cat. No.: C02040010	**Format:** 2 µg	**Concentration:** 40 ng/µl

Product description

The **5-hmC, 5-mC & cytosine DNA standard pack** includes hydroxymethylated, methylated and unmethylated DNA standards. The three provided DNA standards are linear dsDNA of ± 300 bp and have been produced by PCR using the Diagenode's MethylTaq DNA polymerase (Cat. No. C09010010). The PCR was performed with either normal cytosines, 5-methylcytosines, or 5-hydroxymethylcytosines. A different amplicon was amplified for each of the controls, using a plasmid containing a random sequence, not related to any model organism as a template. The hydroxymethyl dCTP is also available separately (Cat. No. C11000002).

These methylation standards have been thoroughly tested in dot blot (Figure 2).

- Unmethylated control (304 bp)
- Methylated control (302 bp)
- Hydroxymethylated control (300 bp)

Storage and stability

Store at -20°C. Avoid multiple freeze/thaw cycles. For long-term storage, and to prevent cross-contamination, aliquoting is recommended.

Applications

Ideal control DNA for dotblot analysis using the 5-methylcytosine and 5-hydroxymethylcytosine antibodies (e.g. Cat. No. C15200003, C15200006, C15200081, C15200200, C15220001 or C15410205).

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Last data sheet update: December 20, 2018

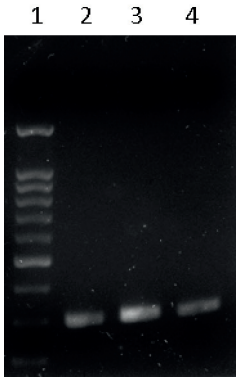

Figure 1. Agarose gel electrophoresis

The methylation standards were analysed on a 1.5 agarose gel. Lane 1: 100 bp DNA ladder, lane 2: unmethylated DNA, lane 3: methylated DNA, lane 4: hydroxymethylated DNA.

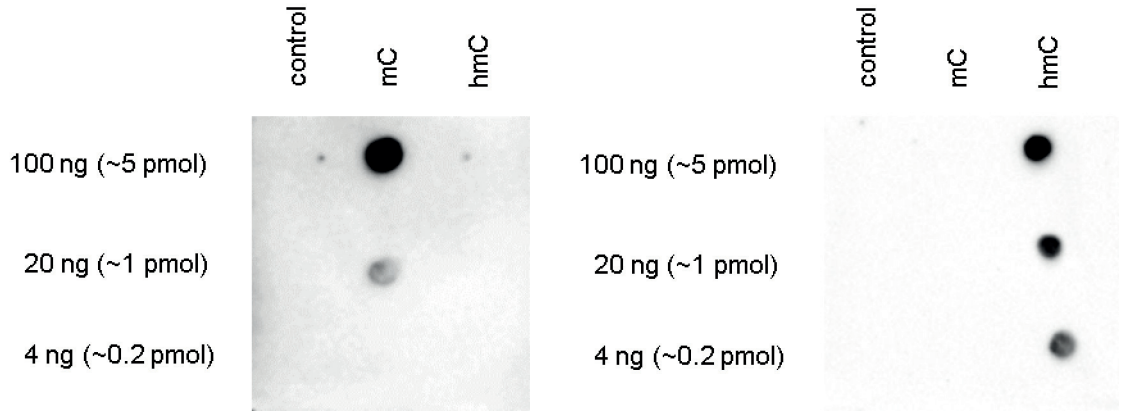

Figure 2. Dot blot analysis

100, 20 and 5 ng of each PCR product (corresponding to approximately 5, 1 and 0.2 pmol of C-bases) were spotted on the membrane. The membrane was subsequently incubated with the 5-methylcytosine monoclonal antibody (Cat No. C15200003, fig 2A) and with the 5-hydroxymethylcytosine monoclonal antibody (Cat. No. C15200200). Both antibodies were used at a concentration of 4 µg/ml. A detailed dotblot protocol can be downloaded from our website.