

MGB CPG 1000

<http://www.lumiprobe.com/p/mgb-cpg-1000>

Dihydropyrroloindole carboxylate (DPI) represents the class minor groove binders (MGB) compounds capable of site-specifically incorporation into the DNA minor groove.

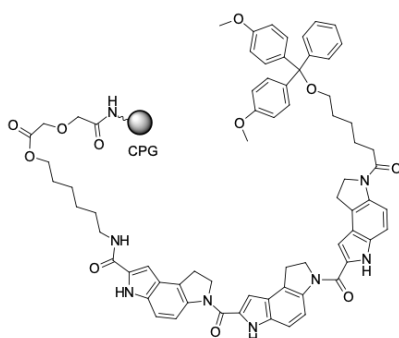
MGB controlled pore glass (CPG) is used as a support for the direct synthesis of oligonucleotides bearing pyrrole subunits arranged along an artificial peptide backbone useful for efficient nucleic acid duplex stabilizing due to higher melting temperatures (T_m) mediated base-stacking interactions in MGB probes.

Designs of oligonucleotides with MGB moiety at the 3'-terminus can be used for hybridization-based assays utilizing stable complexes formed by oligonucleotides with the complementary sequences, e.g., DNA probes in quantitative PCR-based assays.

Usage

Oxidation: preferably 0.5 M CSO in acetonitrile (3 min), when using iodine, iodination products are formed.

Deblocking: standard conditions using CSO as oxidizer, $\text{NH}_4\text{OH}/\text{EtOH}$ 3:1 (v/v) 24 hours at 55 °C using iodine oxidizer.



Structure of MGB CPG 1000

General properties

Appearance: off white beads

Storage conditions: 24 months after receipt at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Desiccate.

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Oligo synthesis details

Pore size, Å: 1000

Typical loading, $\mu\text{mol/g}$: >15