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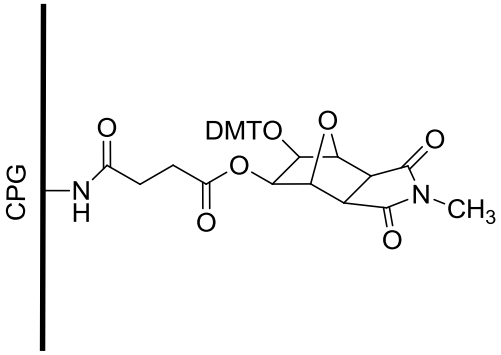
User Instructions

CUTAG CPG

Product Description

CUTAG CPG 500Å Loading 30–40µmol/g
CUTAG CPG 1000Å Loading 25–35µmol/g
Storage Temperature: 2-8°C



Product List

Bulk CPG	
M303000-1G	CUTAG CPG 500Å 30-40µmol/g
M303000-10G	CUTAG CPG 500Å 30-40µmol/g
M403000-1G	CUTAG CPG 1000Å 25-35µmol/g
M403000-10G	CUTAG CPG 1000Å 25-35µmol/g
Columns	
M313060-100EA	Column CUTAG CPG 500Å 50nmol, configured for ABI®/89
M323060-100EA	Column CUTAG CPG 500Å 0.2µmol, configured for ABI®/89
M333060-100EA	Column CUTAG CPG 500Å 1µmol, configured for ABI®/89
M423060-100EA	Column CUTAG CPG 1000Å 0.2µmol, configured for ABI®/89
M433060-100EA	Column CUTAG CPG 1000Å 1µmol, configured for ABI®/89
M313040-100EA	Column CUTAG CPG 500Å 50nmol, configured for MerMade
M323040-100EA	Column CUTAG CPG 500Å 0.2µmol, configured for MerMade
M413040-100EA	Column CUTAG CPG 1000Å 50nmol, configured for MerMade
M423040-100EA	Column CUTAG CPG 1000Å 0.2µmol, configured for MerMade

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CUTAG CPG

CUTAG CPG from Proligo® Reagents is a universal CPG, i.e. comprises a universal linker ("UnyLinker" under license from ISIS Pharmaceuticals). It can be employed instead of conventional nucleoside-loaded CPG - in the synthesis of any oligonucleotide sequence, irrespective of the 3'-end nucleoside.

Our CUTAG CPG can be used with the same standard conditions and reagents that are employed for the synthesis of oligonucleotides conducted with nucleoside-loaded CPG. The only difference in the preparation of oligonucleotides using Proligo Reagent's CUTAG CPG, is that the 3'-base of the oligonucleotide to be synthesized is not attached to the support. This base must be added in the first synthesis cycle on the CUTAG support.

CUTAG CPG can substitute for all conventional DNA and RNA supports. It is compatible with most of the oligonucleotide modifiers described in the literature and so can also be employed to produce 3'-modified- or thioated oligonucleotides.

Cleavage and Deprotection

The cleavage of oligonucleotides from the CUTAG CPG-support and the deprotection reaction can be performed with a variety of conditions:

- Concentrated ammonia for 8 hours at 55°C
- AMA reagent (conc. ammonia/40% aqueous methylamine 1/1, v/v) for 1 hour at 65°C

For sensitive minor bases or dyes the following conditions are recommended:

- 50 mM Potassium carbonate in methanol for 16 hours at room temperature
- tert.-Butylamine/water 1:3 (v/v) for 4 hours at 60°C

Method

1. Attach the CUTAG CPG to the synthesizer in the same way as a nucleoside-loaded CPG.

2. Enter the sequence of the oligonucleotide you wish to synthesize. Note that the 3'-nucleoside of the oligonucleotide sequence must be included in the bases to be attached to the support during the synthesis. This can be achieved with a dummy nucleoside unit for the 3'-end of the sequence, e.g. add a thymidine unit to the 3'-end of the sequence.

3. Proceed as you would with a standard oligonucleotide synthesis. Depending on your intended further use of the oligomer, you can either choose DMT-On or DMT-Off procedures.

4. Cleave and deprotect the oligonucleotide on the support using one of the conditions listed under "Cleavage and Deprotection" above.

5. Transfer the supernatant solution of the oligonucleotide from the support into a separate vial. The yield of the oligonucleotide can be further improved by rinsing the support with water and combining the oligonucleotide solution with the washing solution. Evaporate to dryness.

6. The oligonucleotide is now ready for further processing such as desalting or purification with RP-HPLC, AX-HPLC or gel-based methods.