



## Product Specifications

Custom Oligo Synthesis, antisense oligos, RNA oligos, chimeric oligos, Fluorescent dyes, Affinity Ligands, Spacers & Linkers, Duplex Stabilizers, Minor bases, labeled oligos, Molecular Beacons, siRNA, phosphonates Locked Nucleic Acids (LNA); 2'-5' linked Oligos

### Oligo Modifications

For research use only. Not for use in diagnostic procedures for clinical purposes.

## MGB 3' CDPI3

Category	Duplex Stability
Modification Code	MGB-CDPI3-3
Reference Catalog Number	26-6456
5 Prime	N
3 Prime	Y
Internal	N
Molecular Weight(mw)	813.27

#### **MGB Probe Design: 5'-Fluorophore** 5'-[Fluorophore]...probe sequence...[internal quencher][MGB]-3'

In the 5'-Fluorophore MGB probe design an internal quencher for example BHQ1-dT or BHQ2-dT is placed before the MGB at the 3' end.

#### **MGB Probe Design: 3'-Fluorophore** 5'-[MGB] [internal quencher]...probe sequence...[Fluorophore-3'

In the 3'-Fluorophore MGB probe design an internal quencher for example BHQ1-dT or BHQ2-dT is placed after the MGB at the 5' end.

**MGB Probe Pricing** MGB probe pricing is the total of the price for [MGB] + [internal quencher]+..probe sequence +[Fluorophore]-3'

The tripeptide of dihydropyrroloindole-carboxylate (CDPI3) is a minor groove binding (MGB) moiety derived from the natural product CC-1065 with strong DNA binding properties. Synthetic oligonucleotides with covalently-attached CDPI3 have enhanced DNA affinity and have improved the hybridization properties of sequence-specific DNA probes. Short CDPI3-oligonucleotides hybridize with single-stranded DNA to give more stable DNA duplexes than unmodified ODNs of similar length. CDPI3 MG $\beta$ -oligonucleotide conjugates have been found to be useful in the following applications:

- Arrest of primer extension and PCR blockers
- Short and fluorogenic PCR primers
- Real-time PCR probes
- miRNA Inhibitors

The simplest approach to MGB probe design is to use an MGB support, add a quencher molecule as the first addition and complete the synthesis with a 5'-fluorophore. Alternatively, a fluorophore support could be used with the 5' terminus containing a quencher molecule followed by a final MGB addition at the 5' terminus.

NOTICE: This product is sold under licensing arrangements between ELITechGroup Inc. and Glen Research. The purchase price of this product includes limited, nontransferable rights to use the product solely for activities of the purchaser which are directly related to human diagnostics. Other uses, including incorporation of the product into another commercial product, are prohibited without additional license rights. For information on purchasing a license to this product for purposes other than those stated above, contact: ELITech Group Molecular Diagnostics, 21720 23rd Drive SE, Suite 150, Bothell, WA 98021. Phone (425) 482-5555. Fax (425) 482-5550. Email: [mdx@elitechgroup.com](mailto:mdx@elitechgroup.com). This limited license permits the person or legal entity to which this product has been provided to use the product, and the data generated by use of the product, only for human diagnostics.

Neither ELITechGroup Inc. nor its licensors grants any other licenses, expressed or implied for any other purposes. Some components of nucleic acid analysis, such as specific methods and compositions for manipulating or visualizing nucleic acids for analysis, may be covered by one or more patents owned by other parties. Similarly, nucleic acids containing specific nucleotide sequences may be patented. Making, using, offering for sale, or selling such components or nucleic acids may require one or more licenses. Nothing in this document should be construed as an authorization or implicit license to make, use or sell any so covered component or nucleic acid under any such patents.