

CDPI3 Maleimide [Minor Groove Binder Maleimide]

Catalog number: 6908
Unit size: 1 mg

Product Details

Storage Conditions	Freeze (<-15 °C), Minimize light exposure
Expiration Date	12 months upon receiving

Chemical Properties

Appearance	Solid
Molecular Weight	888.99
Soluble In	DMSO

Applications

Minor Groove Binder (MGB) molecules selectively bind to the minor groove of a DNA molecule, the shallow furrow in the DNA helix. MGB-labeled oligonucleotides form stable hybrid complexes with complementary DNA and RNA target sequences. Dihydropyrroloindole tripeptide (CDPI3), the analogs of natural product CC-1065, have been shown to arrest sequence-specific primer extension on single-stranded DNA when linked to oligonucleotides. CDPI3-containing oligonucleotides increases both the specificity and the strength of hybridization, thus enhancing the stability of DNA duplexes. The addition of MGB molecules to DNA probes allows the design of shorter hybridization probes useful for molecular diagnostics, e.g., quantitative PCR based assays. Several designs are possible, including Taqman MGB probes. Compared to other commercial MGB probes, AAT Bioquest offer this MGB building block that contains a methylpiperazine moiety (derived from Hoechst 33258, another popular MGB molecule) to further enhance its DNA affinity. We offer CDPI3 maleimide for labeling thiol-modified oligos.