

## FIVEphoton Biochemicals

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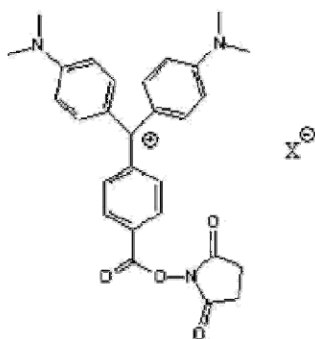
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# Specification Sheet: Malachite Green NHS Ester Part No. HPT1102

<b>Product Name</b>	<b>Malachite Green NHS Ester</b>
Formula	$C_{36}H_{29}Cl_2N_5O_6$
Molecular Weight	698.55
Spectral Properties	Abs = 621 nm
Solvent System	DMF or DMSO
Storage	Desiccate. Keep at 4°C or RT in the dark
Purity	Technical Grade (30% purity)

**Description** **Malachite Green-NHS ester** is a technical grade fluorescent quenching labeling reagent. It can be linked to any molecule with a primary amino group, and it quenches fluorescence from such molecules as fluorescein derivatives. This water soluble molecule enables its wide applicability in labeling target molecules in biological systems. It can also serve as an alternative choice for the same role of Dabcyl, or Black hole quencher (BHQ) derivatives as a quenching moiety for applications such as molecular beacons and probes.

Structure Malachite Green NHS Ester



### Example Protocol to Conjugate Malachite Green-NHS Ester to Oligonucleotides. (The same methods apply for conjugation of Leuco-Malachite Green NHS Ester (Part No. HPT1103) to amines).

The succinimide ester of Malachite Green (63 mg, 90.33 micromol) is dissolved in 1.0 mL methyl sulfoxide. 1 micromole amino-oligo is dissolved in 800 microl of 0.2 M sodium carbonate buffer (pH 8.5). The ester solution (400 microl) is added to the amino-oligo solution. The mixture is then left for 4 hr at RT or 16 hr at 4 degrees C, after which it is chromatographed on a Sephadex G-25 column using deionized water/carbonate buffer (50/50) as eluent. The fraction with deep blue coloration is dialyzed against water to remove excess salt and unreacted reagents, and then freeze-dried. The final product is stored in the refrigerator until use.