

## 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.

## PBlue-455 NHS

Category Fluorescent Dyes

Modification Code PBlue-455-N

Reference Catalog Number 26-6524

5 Prime Y

3 Prime Y

Internal Y

Molecular Weight(mw) 339.21

HO F O NH-Oligo-3'

PBlue-455 NHS Oligo [26-6524-XX]

## Click here for a list of fluorophores.

This modification is a post synthesis conjugation to a primary amino group thus an additional modification with an amino group is required. A C3, C6 or C12 amino group can be placed at the 5' or for the 3' end a C3 or C7 amino and for internal positions an amino modified base is used, e.g Amino dT C6.

Yield of Post Synthesis NHS, Maleimide & Click Ligand Conjugation\* Oligo Scale of Synthesis Yield, nmols 50 nmol 2 nmol 200 nmol 5 nmol 1 umol 16 nmol 2 umol 30 nmol 5 umol 75 nmol 10 umol 150 nmol 15 umol 225 nmol \* The yield will be lower for oligos longer than 50mer. Click here for yield table of long oligos. \* Click here for RNA Oligos scale of synthesis and yield. **NHS Ligand conjugation** requires a primary amino group. Gene Link offers a wide selection of amino modifications for 5', 3' and internal sites. Click here for a list of conjugation chemistry modifications. **Maleimide Ligand conjugation** requires a thiol group. Gene Link offers a wide selection of thiol modifications for 5', 3' and internal sites.



Click here for a list of conjugation chemistry modifications. **Click Chemistry Ligand conjugation** requires a corresponding Click modification; examples Alkyne:Azide, Azide:DBCO, BCN:Azide, BCN: TCO:Tetrazine. Gene Link offers a wide selection of click modifications for 5', 3' and internal sites. Click here for a list of click chemistry modifications.

PBlue-455 is a UV-excitable, bright blue fluorescent dye used for labeling oligonucleotides excitable by the 407 nm spectral line of blue diode (violet color) laser. PBlue-455 has an absorbance maximum of 410 nm and an emission maximum of 455 nm. Because UV light can photo damage labeled oligos, and many kinds of cells and tissues autofluoresce under UV light, PBlue-455 can only be used in a limited number of applications. Nevertheless, for such applications as nucleic acid microarrays and in situ hybridization, where a blue fluorescent probe provides a easily distinguishable, contrasting color to the green, yellow, orange and red fluorescence produced by longer-wavelength probes, PBlue-455 can be a good choice.

