



## 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.

### Atto Rho101

Category	Fluorescent Dyes
Modification Code	AttoRho101-N
Reference Catalog Number	26-6970
5 Prime	Y
3 Prime	Y
Internal	Y
Molecular Weight(mw)	892

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** NHS based modifications are post synthesis conjugation performed using a primary amino group. The yield is lower as compared to direct automated coupling of modifications that are available as amidites. Approximate yield for various scales are given below.

~2 nmol final yield for 50 nmol scale synthesis.

~5 nmol final yield for 200 nmol scale synthesis.

~16 nmol final yield for 1 umol scale synthesis

ATTO Rho101 is a derivative of the well-known dye Rhodamine 101. Characteristic features of the label are strong absorption, extraordinarily high fluorescence quantum yield, and high thermal and photo-stability. The dye is moderately hydrophilic. ATTO Rho101 is a cationic dye. After coupling to a substrate the dye carries a net electrical charge of +1.