

Atto680 NT Labeling Kit, S pack

IR-red fluorescent DNA labeling by nick
translation

Atto680 Nick Translation Labeling Kit contains all reagents (except template and materials for purification of the probe) required for nick translation labeling providing a highly efficient, easy-to-perform and rapid labeling technology. The kit is recommended for direct enzymatic labeling of DNA. The Atto680 NT labeling mix contains specially optimized Atto680-dUTP for incorporation into DNA by nick translation using DNA Polymerase I. The excellent stability and quantum yield of the fluorophore combined with a high incorporation rate of the dye-dUTP complex makes it the ideal choice for a broad range of fluorescence applications. Nick translation labeling is based on the reverse activities of Polymerase I and DNase I. DNase I is able to introduce randomly distributed nicks to double stranded DNA at low enzyme concentrations. The 5'→3' exonuclease activity of Polymerase I removes nucleotides from the 3' side of the nick while synthesizing a partial new complementary strand using the 3'-OH termini as primer. In presence of dye-labeled dUTP Polymerase I incorporates labeled dUTP instead of dTTP. The well balanced polymerase / nuclease activities of the enzyme mix ensure the generation of highly labeled double stranded DNA fragments. The resultant DNA is suited for application in FISH, microarray gene expression profiling and other nucleic acid hybridization assays. Protect fluorescent labeled dUTP from light and carry out experimental procedures in low light conditions.

Ordering Information

[Order Online »](#)

JBS-PP-305S-680

10Reactions

Manuals, SDS & CofA

[View Online »](#)

Handling & Storage

Long Term Storage -20°C

Shipping Blue Ice

Regulatory Status RUO - Research Use Only

Product Details

Technical Info / Product For the Original Manufacturer's data sheet please [click here](#).

Notes



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