

Product Datasheet

Fluorescein NT Labeling Kit (orb533478)

Catalog Number orb533478

Category Assays and Kits

Description Fluorescein 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 Atto488 NT labeling mix contains specially optimized Fluorescein-12-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.

Application notes **Spectroscopic Propertie:** λ_{exc} 492 nm, λ_{em} 517 nm, ϵ 83.0 L mmol⁻¹, cm⁻¹ (Tris-HCl pH 7.5).

SMILES O=C1CCC2C(C1)OC1CC(O)CCC1C2C1C(CCC(C1)C(=O)NCCCCC(=O)NC/C=C/c1cn(c(=O)O)[nH]c1=O)[C@@H]1O[C@H](COP(=O)(O)OP(=O)(O)OP(=O)(O)O)[C@@H](O)C1)C(=O)O.O=C1C(CN(C(=O)[nH]1)[C@@H]1O[C@H](COP(=O)(O)OP(=O)(O)OP(=O)(O)O)[C@@H](O)C1)/C=C/CNC(=O)CCCCNC(=O)c1cc(c(c2c3ccc(O)cc3oc3cc(=O)ccc23)cc1)C(=O)O

Storage store at -20 °C

Biorbyt Ltd.

7 Signet Court, Swann Road
Cambridge
CB5 8LA
United Kingdom

Email: info@biorbyt.com, support@biorbyt.com
Phone: +44 (0)1223 859353 | Fax: +1 (415) 651-8558

Biorbyt LLC

68 TW Alexander Drive
Research Triangle Park
Durham
NC 27713
United States

Email: info@biorbyt.com, support@biorbyt.com
Phone: +1 (415) 906-5211 | Fax: +1 (415) 651-8558

Note

For research use only

Biorbyt Ltd.

7 Signet Court, Swann Road
Cambridge
CB5 8LA
United Kingdom

Email: info@biorbyt.com, support@biorbyt.com

Phone: [+44 \(0\)1223 859353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

Biorbyt LLC

68 TW Alexander Drive
Research Triangle Park
Durham
NC 27713
United States

Email: info@biorbyt.com, support@biorbyt.com

Phone: [+1 \(415\) 906-5211](tel:+1(415)906-5211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)