

## Product Datasheet

# HighFidelity ATTO488 PCR Labeling Kit (orb653768)

**Description**

HighFidelity ATTO488 PCR Labeling Kit is designed to produce randomly ATTO488-modified DNA probes by PCR. Such probes are ideally suited for Fluorescence in situ hybridization (FISH) and Northern Blot experiments. PCR-based labeling is superior to random-primed labeling with Klenow fragment if template amounts are limited or amplification of a specific DNA fragments is required. Amplification of probes up to 4 kbp is feasible. dUTP-XX-ATTO-488 is efficiently incorporated into DNA as substitute for its natural counterpart dTTP using an optimized reaction buffer and a High Fidelity Polymerase blend consisting of Taq polymerase and a proofreading enzyme. 50% dUTP-XX-ATTO-488 substitution typically results in an optimal balance between reaction and labeling efficiency. Individual optimization of dUTP-XX-ATTO-488/dTTP ratio however, can easily be achieved with the single nucleotide format. The kit contains sufficient reagents for 10 labeling reactions (S-Pack) or 50 labeling reactions (L-Pack) of 20 µl each (50% dUTP-XX-ATTO-488 substitution, 100 µM dATP/dGTP/dCTP, 50 µM dTTP, 50 µM dUTP-XX-ATTO-488).

**Storage**

store at -20 °C

**Note**

For research use only

**Application notes**

b>Spectroscopic Propertie:  $\lambda_{exc}$  500 nm,  $\lambda_{em}$  520 nm,  $\epsilon$  90.0 L mmol<sup>-1</sup> cm<sup>-1</sup> (Tris-HCl pH 7.5).

**SMILES**C(/C=C/c1cn(c(=O)[nH]c1=O)[C@H]1C[C@@H]([C@H](O1)COP(=O)(O)OP(=O)(O)OP(=O)(O)O)NC(=O)CCCCNC(=O)CCCCNC(=O)CCCN(C(=O)c1c(ccc1)c1c2c(oc3c1ccc(=[NH2+])c3S(=O)(=O)[O-])c(c(cc2)N)S(=O)(=O)O)C**Expiration Date**

12 months from date of receipt.

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