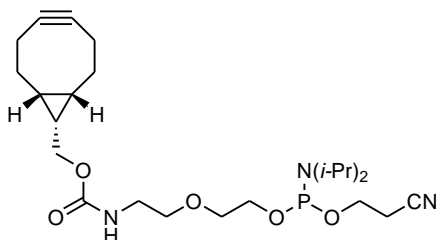


## 5'-Click-easy™ BCN CEP II

Product No. BA 0373

### Product Information



C<sub>24</sub>H<sub>40</sub>F<sub>1</sub>N<sub>3</sub>O<sub>5</sub>P  
Mol. Wt.: 481.57

The Cu(I) catalyzed [3+2] azide-alkyne cycloaddition (CuAAC) also known as the Click reaction, has become an invaluable tool in biochemical research.<sup>1,2</sup> This cycloaddition reaction is remarkably efficient and reliable even in the presence of the diverse array of functional groups found in DNA and the variety of scientifically intriguing ligation partners. Despite the efficiency of the click reaction, and the abiotic nature of the azide functionality, the presence of copper is a hindrance for bioorthogonal labeling in living systems. Our 5'-Click-easy™ BCN CEP II (BA 0373) now provides a solution for simple, yet robust copper-free click ligation. BA 0373 utilizes the novel bicyclo[6.1.0]nonyne (BCN)<sup>3</sup> as the scaffold for strain-promoted alkyne-azide cycloaddition with azides.

**Use In Oligo Synthesis:** Dissolve the phosphoramidite in acetonitrile at concentrations recommended by the synthesizer manufacturer. Coupling should be carried out using standard instrument DMT on protocols. Coupling efficiency is >95% with standard coupling times, however, extended coupling times will increase the yield. Cleavage from the solid support and deprotection can be carried out under standard conditions.

### References

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- 2) (a) Sletten, E. M.; Bertozzi, C. R. *Angew. Chem., Int. Ed.* **2009**, *48*, 6974. (b) Tron, G. C.; Pirali, T.; Billington, R. A.; Canonico, P. L.; Sorba, G.; Genazzani, A. A. *Med. Res. Rev.* **2007**, *28*, 278. (c) Moses, J. E.; Moorhouse, A. D. *Chem. Soc. Rev.* **2007**, *36*, 1249.
- 3) Dommerholt, J.; Schmidt, S.; Temming, R.; Hendricks, L.J.A.; Rutjes, F.P.J.T.; van Hest, J.C.M.; Lefeber, D.J.; Friedl, P.; van Delft, F.L. *Angew. Chem., Int. Ed.* **2010**, *49*, 9422-9425.