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DBCO-Serinol phosphoramidite

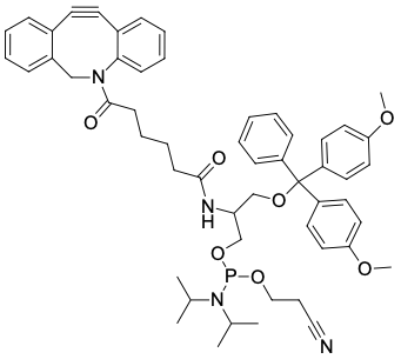
http://cn.lumiprobe.com/p/dbco-serinol-phosphoramidite

Incorporation of DBCO-Serinol at a defined position within the oligonucleotide chain yields a reactive alkyne group ready for highly selective, bioorthogonal conjugation with azide-bearing molecules via strain-promoted azide–alkyne cycloaddition (SPAAC). Because this reaction does not require copper catalysts, it can be performed under mild conditions, including in the presence of living cells or sensitive biomacromolecules.

The modified oligonucleotides can be conjugated with fluorophores, biotin, peptides, polymers, nanoparticles, and other partners. This enables the preparation of probes for hybridization-based assays (FISH, microarrays), aptamers, delivery conjugates, and DNA nanostructures.

Recommendations for using the reagent:

During synthesis, it is important to replace the standard iodine oxidation with an alternative oxidizer (CSO), as the DBCO group is sensitive to iodine; otherwise, the reagent is compatible with standard solid-phase synthesis protocols and subsequent purification by HPLC or PAGE.



外观	
分子量	909.08
分子式	$C_{54}H_{61}N_4O_7P$
溶解度	
质量控制	
储存条件	
法律声明	本产品仅供研究目的提供和销售。 本产品并未经过食品、药品、医疗器械、化妆品等领域的安全性和效力测试，且未经明示或暗示授权用于其他任何用途，包括但不限于体外诊断、人类或动物用途，以及商业用途 。
稀释剂	无水乙腈
偶联条件	室温10-12分钟
解保护条件	stable to deprotection with ammonium hydroxide for 2 hours at 65 °C or overnight at room temperature. Compatible with AMA for deprotection, showing only slight degradation of the cyclooctyne after 2 hours. Oxidation: for oxidation step recommended to use 0.5 M CSO in anhydrous acetonitrile, Iodine oxidation is suitable to no more than 8-10 cycles.