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DBCO-Serinol phosphoramidite

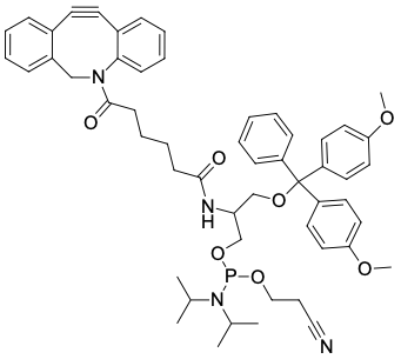
http://hk.lumiprobe.com/p/dbco-serinol-phosphoramidite

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:	本產品僅供研究目的提供和銷售。本產品並未經過食品、藥品、醫療器械、化妝品等領域的安全性和效力測試，且未經明示或暗示授權用於其他任何用途，包括但不限於體外診斷、人類或動物用途，以及商業用途。
稀释剂:	無水乙腈
偶联条件:	室溫10-12分鐘
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.