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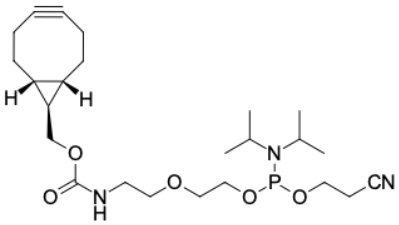
exo-BCN CE-phosphoramidite

http://www.lumiprobe.com/p/exo-bcn-ce-amidite

BCN-containing phosphoramidite is added at the 5′-terminus of an oligonucleotide. BCN is reactive both to azides (strain-promoted azyde-alkyne cycloaddition, SPAAC) and tetrazines (inverse electron demand Diels-Alder reaction, IEDDA) .

The exo-stereoisomer bicyclononine in exo-BCN CE-phosphoramidite exhibits a cycloaddition rate that does not differ significantly from its endo-conformer, indicating that the choice of isomer is not critical for application.



Structure of exo-BCN CE-Phosphoramidite

General properties	
Appearance:	yellowish oil
Mass spec M+ increment:	343.11
Molecular weight:	481.57
Molecular formula:	$C_{24}H_{40}N_3O_5P$
Solubility:	good in acetonitrile
Quality control:	NMR ^{1}H, NMR ^{31}P (95 %)
Storage conditions:	12 months after receival at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Desiccate.
Legal statement:	This Product is offered and sold for research purposes only. It has not been tested for safety and efficacy in food, drug, medical device, cosmetic, commercial or any other use. Supply does not express or imply authorization to use for any other purpose, including, without limitation, in vitro diagnostic purposes, in the manufacture of food or pharmaceutical products, in medical devices or in cosmetic products.

Oligo synthesis details	
Diluent:	dry acetonitrile
Coupling conditions:	coupling time 6 minutes. Oxidation: 0.5M (1S)-(+)-(10-camphorsulfonyl)-oxaziridine (CSO) in dry acetonitrile, 2 minutes. The modification is incompatible with iodine oxidation. Exclude the dimethoxytrityl (DMT) removal step (as in DMT-on protocol), because the modification is acid sensitive.
Deprotection conditions:	AMA (40% aq. methylamine, 25% ammonia, 1:1 mixture), 2 hours, room temperature