

endo-BCN CE-phosphoramidite

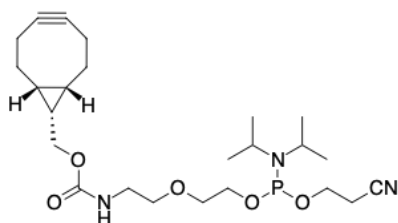
<http://www.lumiprobe.com/p/endo-bcn-ce-amidite>

Bicyclononyne (BCN) is a stable and one of the most reactive cyclooctynes for copper-free click chemistry. Unlike dibenzocyclooctyne (DBCO), BCN is reactive both to azides (strain-promoted azide-alkyne cycloaddition, SPAAC) and [tetrazines](#) (inverse electron demand Diels-Alder reaction, IEDDA). Being an endo-stereoisomer, bicyclononyne in endo-BCN CE-phosphoramidite provides not significantly different rate of cycloaddition compared to its [exo-conformer](#).

BCN-labeled oligonucleotides may be used for the conjugation to azide- or tetrazine-containing solid surfaces, polymers, and large proteins.

Coupling time is standard, like for amidites of natural nucleosides. Exclude the dimethoxytrityl (DMT) removal step and use the Dmt-ON protocol after amidite coupling and oxidation.

Use standard conditions for deprotection and ammonia solution, or AMA mixture (ammonium hydroxide / 40% methylamine, 1:1).



Structure of endo-BCN CE-Phosphoramidite

General properties

Appearance:	yellowish oil
Mass spec M+ increment:	343.11
Molecular weight:	481.57
CAS number:	1352811-59-6
Molecular formula:	C ₂₄ H ₄₀ F ₁ N ₃ O ₅ P
Solubility:	good in acetonitrile
Quality control:	NMR ¹ H and ³¹ P (95 %)
Storage conditions:	Storage: 12 months after receipt at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Avoid prolonged exposure to light. 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:	Anhydrous Acetonitrile
Deprotection conditions:	identical to protected nucleobases