

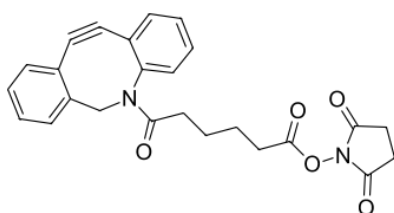
DBCO-NHS ester

<http://www.lumiprobe.com/p/dbco-nhs-ester>

Dibenzocyclooctyne (ADIBO, DBCO) is one of the most reactive cycloalkynes for strain-promoted alkyne azide cycloaddition (SPAAC) — a copper-free click chemistry reaction.

DBCO reacts instantly with azides. The reaction rate is much higher than that of copper-catalyzed reaction, and reactions with many other cyclooctynes. Unlike some other cyclooctynes, DBCO does not react with tetrazines — this allows to carry out orthogonal conjugation of azides with DBCO, and trans-cyclooctenes with tetrazines.

This amine-reactive NHS ester provides easy attachment of the reactive moiety to almost any primary or secondary amine group, such as protein, peptide, or small molecule amine.



DBCO (ADIBO) NHS ester structure

General properties

Appearance: off white solid

Mass spec M+ increment: 315.1

Molecular weight: 430.45

CAS number: 1384870-47-6

Molecular formula: C₂₅H₂₂N₂O₅

IUPAC name: 6-{2-Azatricyclo[10.4.0.0^{4,9}]hexadeca-1(16),4,6,8,12,14-hexaen-10-yn-2-yl}-6-oxohexanamide

Solubility: good in DCM, DMF, DMSO

Quality control: NMR ¹H, HPLC-MS (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.

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