

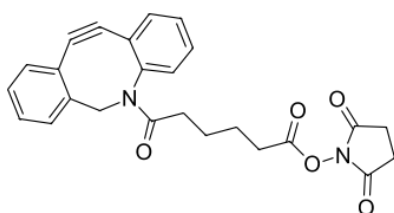
## DBCO-NHS ester

<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+ 315.1  
increment:

Molecular weight: 430.45

CAS number: 1384870-47-6

Molecular formula: C<sub>25</sub>H<sub>22</sub>N<sub>2</sub>O<sub>5</sub>

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

Solubility: good in DCM, DMF, DMSO

Quality control: NMR <sup>1</sup>H, 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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