Lumiprobe Corporation
201 International Circle, Suite 135
Hunt Valley, Maryland 21030
USA
Phone: +1 888 973 6353
Fax: +1 888 973 6354
Email: order@lumiprobe.com

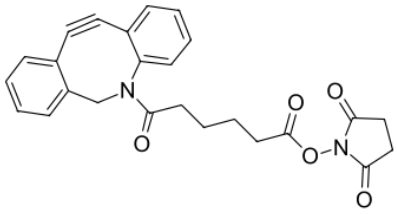
DBCO NHS ester

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.

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

DBCO reacts instantly with azides. The rate of the reaction 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.



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:	$C_{25}H_{22}N_2O_5$
IUPAC name:	6-{2-Azatricyclo[10.4.0.04,9]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 receival at -20°C in the dark. Transportation: at room temperature for up to 3 weeks. Avoid prolonged exposure to light. Desiccate.