

## TCO-PEG4-NHS ester (axial isomer)

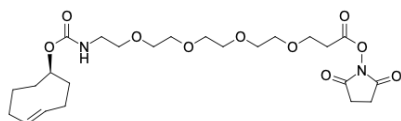
<http://www.lumiprobe.com/p/tco-peg4-nhs-axial-isomer>

TCO-PEG4-NHS ester is a bifunctional linker with trans-cyclooctene (TCO) and NHS ester groups flanking PEG4 (tetraethylene glycol).

The PEG spacer increases solubility in aqueous media and provides a long and flexible connection that minimizes steric hindrance involved with ligation.

The amine-reactive N-hydroxysuccinimide residue provides easy attachment to almost any primary or secondary amine group, such as protein, peptide, or small molecule amine.

Trans-cyclooctene readily reacts with tetrazines via inverse electron-demand Diels-Alder cycloaddition (IEDDA). TCO-Tetrazine ligation possesses ultrafast kinetics, selectivity, and long-term aqueous stability, which is important in low-concentration applications such as protein-protein conjugations, etc.



**Structure of TCO-PEG4-NHS ester**

### General properties

Appearance: colorless syrup

Molecular weight: 514.57

CAS number: 1621096-79-4

Molecular formula:  $C_{24}H_{38}N_2O_{10}$

Solubility: DMSO, DMF, THF, Acetonitrile, Dichloromethane

Quality control: NMR  $^1H$  and HPLC-MS (95+%)

Storage conditions: 12 months after receipt at  $-20^{\circ}C$  in the dark. Transportation: at room temperature for up to 3 weeks. Desiccate.

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