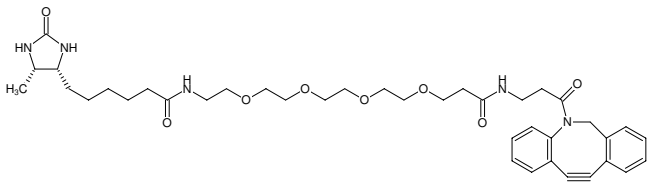
DATA SHEET

Jena Bioscience

DBCO-PEG$_4$-Desthiobiotin

Dibenzylcyclooctyne-PEG$_4$-Desthiobiotin

Cat. No.	Amount
CLK-1108-10	10 mg
CLK-1108-100	100 mg



Structural formula of DBCO-PEG$_4$-Desthiobiotin

For general laboratory use.

Shipping: shipped at ambient temperature

Storage Conditions: store at -20 °C

Shelf Life: 12 months after date of delivery

Molecular Formula: $C_{39}H_{53}N_5O_8$

Molecular Weight: 719.88 g/mol

Exact Mass: 719.39 g/mol

Purity: ≥ 90 % (HPLC)

Form: oil

Color: colorless to slightly yellow

Solubility: DMSO, DMF, MeOH, DCM, THF

Description:
DBCO-PEG$_4$-Desthiobiotin is suitable for the introduction of a desthiobiotin moiety to Azide-labeled biomolecules via Cu(I)-free strain-promoted Alkyne-Azide Click Chemistry (SPAAC) reaction.

The hydrophilic PEG$_4$ linker reduces or eliminates aggregation and precipitation during the labeling process by increasing the hydrophilicity of the target molecule. It furthermore enhances the accessibility of the desthiobiotin moiety and thus the detection efficiency of the desthiobiotinylated molecule via fluorescent or HRP-labeled streptavidin or its affinity purification via streptavidin agarose.

Desthiobiotin binds less tightly to streptavidin (KD = 10^{-11} M) than Biotin (KD = 10^{-15}M). Desthiobiotinylated molecules are therefore easily eluted from the complex in the presence of excess Biotin.