Product Data Sheet

Product Name: m-PEG3-aldehyde
Cat. No.: GC67183

Chemical Properties

Cas. No.	356066-46-1		
Formula	$C_8H_{16}O_4$	M.Wt	176.21
Solubility		Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	m-PEG3-aldehyde		

Background

m-PEG3-aldehyde is a **PEG-based PROTAC linker** can be used in the synthesis of PROTACs.

PROTACs contain two different ligands connected by a linker; one is a ligand for an E3 ubiquitin ligase and the other is for the target protein. PROTACs exploit the intracellular ubiquitin-proteasome system to selectively degrade target proteins[1].
The binding affinities of anti-mPEGs depend more on the backbone lengths of the polymers and the hydrophobicities of their end-groups than on their resemblance to the methoxy terminus of the immunogenic polymer[1].
Aldehyde is reactive to hydrazide and aminooxy groups which are commonly used in biomolecular probes for labeling and crosslinking carbonyls (oxidized carbohydrates). The hydrophilic PEG spacer increases solubility in aqueous media.

[1]. Saifer MG, et al.Selectivity of binding of PEGs and PEG-like oligomers to anti-PEG antibodies induced by methoxyPEG-proteins.Mol Immunol. 2014 Feb;57(2):236-46.

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