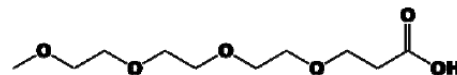


m-dPEG4-acid

Product Description

Name :	m-dPEG4-acid	
Catalog Number :	BH9103 1g	
Structure :	C ₁₀ H ₂₀ O ₆	CAS [67319-28-2]
Molecular Weight :	MW= 236,26	
Properties:	Solubility: Methylene chloride, DMAC or DMSO	
Physical form :	Liquid	



Storage: 4°C for long term storage; can be kept at room temperature when in regular use (1)

Introduction

Acid form of the corresponding m-dPEG[®] NHS esters

- Can activate the acid *in situ* using standard activation methods, e.g., with EDC and NHS in methylene chloride (see protocol)
- Pegylation spacer is water soluble, non-immunogenic and non-toxic, so can be used to modulate the properties of the m-dPEG[®] pegylation modified compounds.

Directions for use

Storage

dPEG[®] pegylation compounds are generally hygroscopic and should be treated as such. This will be less noticeable with liquids, but the solids will become tacky and difficult to manipulate, if care is not taken to minimize air exposure.

Handling

A unique feature for all of the dPEG[®] pegylation and crosslinking products is their tendency to be very soluble in methylene chloride, making it a convenient medium for running many routine reactions with our products.

DMF is an alternative for DMAC, but we do not promote the use of DMF due to the tendency for amines to be present.

Protocol for *in situ* activation to the NHS ester:

Use a 10-20% molar excess of EDC and NHS in dry methylene chloride (dried over 3A molecular sieves). Add a methylene chloride solution of the acid to the dry reagents under dry conditions. Stir for several hours or overnight, then evaporate the solvent and use. Can also treat reaction mixture with a small amount of silica gel to adsorb the excess EDC and the urea by-product, filter, then evaporate the solvent and use. Note of caution: The NHS should be added with the EDC to prevent formation of the anhydride. DCC can also be used. Typically use about 1 equivalent, and add a solution of the DCC to the acid and NHS (1.1 to 1.2 equivalents).

HOBt or PFP (2,3,4,5,6-pentafluorophenol) could be used in place of the NHS, if this is a preference for the activated ester. Others too can be used as well, but these are probably the most popular. If one wanted to make the sulfo-NHS ester then one would need to use a much more polar solvent in order to accommodate the very poor solubility of the sulfo-NHS in organic solvents, using solvents such as DMF or DMAC.

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FT-BH9103

References

- **Anderson, A. et al.**, Functional PEG-Modified Thin Films for Biological Detection, 24, 2240-2247 (2008)
- **Kidambi S. et al.**, Selective Depositions on Polyelectrolyte Multilayers: Self-Assembled Monolayers of m-dPEG Acid as Molecular Template, *J. AM. Chem. Soc.*, 126, 4697-4703 (2004)
- **Kidambi S., et al.**, Tunable Resistive m-dPEG Acid Patterns on Polyelectrolyte Multilayers at Physiological Conditions: Template for Directed Deposition of Biomacromolecules, *American Chemical Society* (2008)
- **Kohli N. et al.**, Arrays of lipid bilayers and liposomes on patterned polyelectrolyte templates, *Journal of Colloid and Interface Science* 301 461-569 (2006)

Related products

- EDC, [UP520059](#)
- DCC, [HG9911](#)
- HOBt, [NO4580](#)

Ordering information

Catalog size quantities and prices may be found at <http://www.interchim.com>.
Please inquire for higher quantities (availability, shipment conditions).

For any information, please ask : Uptima / Interchim; Hotline : +33(0)4 70 03 73 06

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