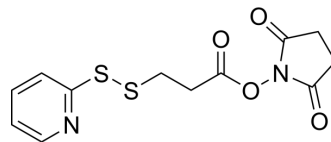


SPDP

Cat. No.:	HY-100216
CAS No.:	68181-17-9
Molecular Formula:	C ₁₂ H ₁₂ N ₂ O ₄ S ₂
Molecular Weight:	312.36
Target:	ADC Linker
Pathway:	Antibody-drug Conjugate/ADC Related
Storage:	-20°C, protect from light, stored under nitrogen * The compound is unstable in solutions, freshly prepared is recommended.



SOLVENT & SOLUBILITY

In Vitro	DMSO : 155 mg/mL (496.22 mM; Need ultrasonic)				
		Solvent Concentration	Mass		
	Preparing Stock Solutions		1 mg	5 mg	10 mg
		1 mM	3.2014 mL	16.0072 mL	32.0143 mL
		5 mM	0.6403 mL	3.2014 mL	6.4029 mL
	10 mM	0.3201 mL	1.6007 mL	3.2014 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (6.66 mM); Clear solution 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (6.66 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	SPDP (SPDP Crosslinker) is a short-chain crosslinker for amine-to-sulfhydryl conjugation via NHS-ester and pyridyldithiol reactive groups that form cleavable (reducible) disulfide bonds with cysteine sulfhydryls. It is a glutathione cleavable ADC linker used for the antibody-drug conjugates (ADCs) ^{[1][2]} .	
IC₅₀ & Target	Disulfide Cleavable Linker	Cleavable Linker
In Vitro	Equal amounts of anti-CD11c and anti-CTLA-4 Abs (in borate buffered saline; pH 8.5) are activated using SPDP. MCE has not independently confirmed the accuracy of these methods. They are for reference only.	

CUSTOMER VALIDATION

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- Bioeng Transl Med. 2022 Jul 30;8(1):e10377.
 - Bioeng Transl Med. 26 July 2022.
 - Microb Cell Fact. 2021 Mar 10;20(1):67.
 - Colloids Surf B Biointerfaces. 2023 Mar 1;224:113237.

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REFERENCES

[1]. Lobedanz S et al. A periplasmic coiled-coil interface underlying TolC recruitment and the assembly of bacterial drug efflux pumps. Proc Natl Acad Sci U S A, 2007 Mar 13, 104(11):4612-7.

[2]. Karumuthil-Meethil S et al. Dendritic cell-directed CTLA-4 engagement during pancreatic beta cell antigen presentation delays type 1 diabetes. J Immunol 2010 Jun 15, 184(12):6695-708.

Caution: Product has not been fully validated for medical applications. For research use only.

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