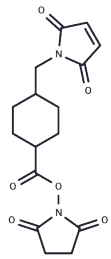
Data Sheet (Cat.No.T9116)

TargetMol

SMCC

Chemical Properties



CAS No. : 64987-85-5

Formula: C16H18N2O6

Molecular Weight: 334.32

Storage: Store at low temperature,Keep away from direct sunlight,Store under nitrogen
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	SMCC (N-Succinimidyl 4-(N-maleimidomethyl)cycl) is a heterobifunctional protein crosslinker.
Targets(IC50)	ADC Linker
In vitro	N-Succinimidyl 4-(N-maleimidomethyl)cycl (SMCC) is an amine-to-sulfhydryl crosslinker that contains NHS-ester and maleimide reactive groups at opposite ends of a medium-length cyclohexane-stabilized spacer arm (8.3 angstroms). SMCC conjugation occurs via a maleimide group that is sulfhydryl (thiol; -SH) reactive and a NHS ester group that is amine reactive and forms stable, covalent protein crosslinks.
Cell Research	Branched PEI (25 kDa) was dissolved in PBS buffer to yield a concentration of 1 mg/mL. No-weigh Sulfo-SMCC was dissolved in Milli-Q water with a concentration of 10 mg/mL, then a certain of the prepared no-weigh SulfoSMCC solution was added into 2 mL PEI solution to incubate for 30 min at 37 C. After the PEI-SMCC polymer was formed, TAT solution was added into the polymer at the given molar ratio and incubated for 2 h at 4 C. The concentration of unreacted SMCC and unreacted TAT were removed using Zeba Spin Desalting Columns. The polymer PEI-SMCC-TAT was also characterized and analyzed through FTIR to check if each element was added to the PEI backbone.

Solubility Information

Solubility	DMSO: 72.14 mg/mL (215.78 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (5.98 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.9911 mL	14.9557 mL	29.9115 mL
5 mM	0.5982 mL	2.9911 mL	5.9823 mL
10 mM	0.2991 mL	1.4956 mL	2.9911 mL
50 mM	0.0598 mL	0.2991 mL	0.5982 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Li F, Wang Z, Huang Y, Xu H, He L, Deng Yan, Zeng X, He N. Delivery of PUMA Apoptosis Gene Using Polyethyleneimine-SMCC-TAT/DNA Nanoparticles: Biophysical Characterization and In Vitro Transfection Into Malignant Melanoma Cells. J Biomed Nanotechnol. 2015 Oct;11(10):1776-82. PubMed PMID: 26502640.