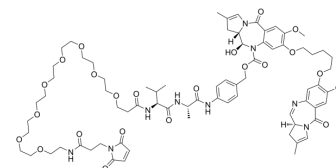


## Tesirine

<b>Cat. No.:</b>	HY-128952
<b>CAS No.:</b>	1595275-62-9
<b>Molecular Formula:</b>	C <sub>75</sub> H <sub>101</sub> N <sub>9</sub> O <sub>23</sub>
<b>Molecular Weight:</b>	1496.65
<b>Target:</b>	Drug-Linker Conjugates for ADC; DNA Alkylator/Crosslinker
<b>Pathway:</b>	Antibody-drug Conjugate/ADC Related; Cell Cycle/DNA Damage
<b>Storage:</b>	-20°C, protect from light, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 200 mg/mL (133.63 mM; Need ultrasonic)					
		Solvent Concentration	Mass			
	<b>Preparing Stock Solutions</b>			1 mg	5 mg	10 mg
		1 mM		0.6682 mL	3.3408 mL	6.6816 mL
		5 mM		0.1336 mL	0.6682 mL	1.3363 mL
	10 mM		0.0668 mL	0.3341 mL	0.6682 mL	
Please refer to the solubility information to select the appropriate solvent.						
<b>In Vivo</b>	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 5 mg/mL (3.34 mM); Clear solution					
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: 5 mg/mL (3.34 mM); Suspended solution; Need ultrasonic					
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 5 mg/mL (3.34 mM); Clear solution					

### BIOLOGICAL ACTIVITY

<b>Description</b>	Tesirine (SG3249) is an antibody-drug conjugate (ADC) pyrrolobenzodiazepine (PBD) dimer payload. Tesirine combines potent antitumor activity with desirable physicochemical properties such as favorable hydrophobicity and improved conjugation characteristics. SG3199 (HY-101161) is the released warhead component of the ADC payload Tesirine. SG3199 retains picomolar activity in a panel of cancer cell lines. PBD dimers are highly efficient DNA minor groove cross-linking agents with potent cytotoxicity <sup>[1][2]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	Pyrrolobenzodiazepines

## In Vitro

Tesirine (SG3199) is the released warhead component of the ADC payload Tesirine. Tesirine inhibits K562, NCIN87, BT474, and SKBR3 cancer cells with IC<sub>50</sub>s of 150 pM, 20 pM, 1 nM and 320 pM<sup>[1]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## CUSTOMER VALIDATION

- Cell Rep. 2023 Nov 28;42(12):113503.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

- [1]. Tiberghien AC, et al. Design and Synthesis of Tesirine, a Clinical Antibody-Drug Conjugate Pyrrolobenzodiazepine Dimer Payload. ACS Med Chem Lett. 2016;7(11):983-987. Published 2016 May 24.
- [2]. Hartley JA, et al. Pre-clinical pharmacology and mechanism of action of SG3199, the pyrrolobenzodiazepine (PBD) dimer warhead component of antibody-drug conjugate (ADC) payload tesirine. Sci Rep. 2018;8(1):10479. Published 2018 Jul 11.

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

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