# Inhibitors

# Integrin modulator 1

Cat. No.: HY-134130 CAS No.: 2023788-32-9 Molecular Formula:  $C_{13}H_{14}N_{2}O_{4}$ Molecular Weight: 262.26 Target: Integrin Pathway: Cytoskeleton

Storage: 4°C, sealed storage, away from moisture and light

\* In solvent: -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture

and light)

**Product** Data Sheet

## **SOLVENT & SOLUBILITY**

Vitro

DMSO: 100 mg/mL (381.30 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	3.8130 mL	19.0650 mL	38.1301 mL
	5 mM	0.7626 mL	3.8130 mL	7.6260 mL
	10 mM	0.3813 mL	1.9065 mL	3.8130 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: ≥ 5 mg/mL (19.07 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 5 mg/mL (19.07 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 5 mg/mL (19.07 mM); Clear solution

## **BIOLOGICAL ACTIVITY**

Description	Integrin modulator 1 is a potent and selective $\alpha 4\beta 1$ integrin agonist, with an IC <sub>50</sub> of 9.8 nM for RGD-binding $\alpha 4\beta 1$ . Integrin modulator 1 increases cell adhesion mediated by $\alpha 4\beta 1$ integrin, with an EC <sub>50</sub> of 12.9 nM <sup>[1]</sup> .
IC <sub>50</sub> & Target	$\alpha$ 4β1 9.8 nM (IC <sub>50</sub> )
In Vitro	Integrin modulator 1 (2-10 $\mu$ g/mL; 30 min) significantly increases Jurkat E6.1 cell adhesion <sup>[1]</sup> . Integrin modulator 1 (1-100 nM; 1 h) strongly and significantly increases ERK1/2 phosphorylation in Jurkat E6.1 cells <sup>[1]</sup> .

Integrin modulator 1 (1 nM-10  $\mu$ M; 30 min) significantly increases the binding of HUTS-21 antibody to Jurkat E6.1 cells in a concentration-dependent manner [1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### **REFERENCES**

[1]. Baiula M, et, al. New  $\beta$ -Lactam Derivatives Modulate Cell Adhesion and Signaling Mediated by RGD-Binding and Leukocyte Integrins. J Med Chem. 2016 Nov 10;59(21):9721-9742.

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

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