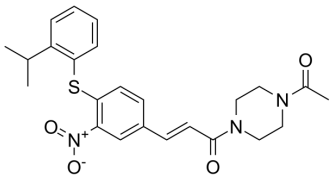
A-286982

Cat. No.:	HY-107587
CAS No.:	280749-17-9
Molecular Formula:	$C_{24}H_{27}N_3O_4S$
Molecular Weight:	453.55
Target:	Integrin
Pathway:	Cytoskeleton
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (110.24 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.2048 mL	11.0241 mL	22.0483 mL
	5 mM	0.4410 mL	2.2048 mL	4.4097 mL
	10 mM	0.2205 mL	1.1024 mL	2.2048 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: ≥ 1 mg/mL (2.20 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 1 mg/mL (2.20 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

A-286982 is a potent and allosteric LFA-1/ICAM-1 interaction inhibitor with IC_{50}s of 44 nM and 35 nM in an LFA-1/ICAM-1 binding and LFA-1-mediated cellular adhesion assay, respectively[1][2].

IC_{50} & Target

IC50: 44 nM (LFA-1/ICAM-1 interaction in an LFA-1/ICAM-1 binding assay) and 35 nM (LFA-1/ICAM-1 interaction in LFA-1-mediated cellular adhesion assay)[1]

In Vitro

A-286982 binds to the I domain allosteric site (IDAS). The allosteric ICAM inhibition such as this would be expected to exhibit the unsurmountable competition we have observed for A-286982 as a result of the passage of this allostery through the A-286982 binding site in its transmission from the β subunit I-like domain to the α subunit ICAM binding site[2].

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

CUSTOMER VALIDATION

- Hematol Oncol. 2023 Jul 26.

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REFERENCES

[1]. G Liu, et al. Discovery of novel p-arylthio cinnamides as antagonists of leukocyte function-associated antigen-1/intracellular adhesion molecule-1 interaction. 1. Identification of an additional binding pocket based on an anilino diaryl sulfide lead. J Me

[2]. Susan M Keating, et al. Competition between intercellular adhesion molecule-1 and a small-molecule antagonist for a common binding site on the alphal subunit of lymphocyte function-associated antigen-1. Protein Sci. 2006 Feb;15(2):290-303.

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

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