THZ1-R

Cat. No.: HY-19988

CAS No.: 1621523-07-6

Molecular Formula: $C_{31}H_{30}ClN_7O_2$

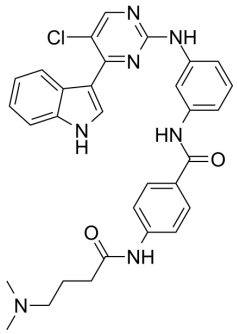
Molecular Weight: 568.07

Target: CDK

Pathway: Cell Cycle/DNA Damage

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	2 years
	-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (176.03 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	1.7603 mL	8.8017 mL	17.6035 mL
5 mM	0.3521 mL	1.7603 mL	3.5207 mL
10 mM	0.1760 mL	0.8802 mL	1.7603 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: ≥ 2.5 mg/mL (4.40 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (4.40 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

THZ1-R is a non-cysteine reactive analog of THZ1 which displays diminished activity for CDK7 inhibition. THZ1-R binds to CDK7 with a K_d of 142 nM.

IC_{50} & Target

CDK7

146 nM (IC_{50})

In Vitro

THZ1-R shows lower affinity at CDK7 than THZ1, with IC_{50} of 146 nM[1].

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

PROTOCOL

Cell Assay [1]

Cells are seeded in 384-well microplates at 15% confluency in medium with 5% FBS and penicillin/streptavidin. Cells are treated with THZ1 or DMSO for 72 hrs and cell viability is determined using resazurin.

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

CUSTOMER VALIDATION

- Cancer Discov. 2019 Nov;9(11):1538-1555.
- Proc Natl Acad Sci U S A. 2019 Jun 25;116(26):12986-12995.
- Cell Death Dis. 2019 Aug 9;10(8):602.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Kwiatkowski N, et al. Targeting transcription regulation in cancer with a covalent CDK7 inhibitor. Nature. 2014 Jul 31;511(7511):616-20.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA