VY-3-135

Cat. No.: HY-145953

CAS No.: 1824637-41-3

Molecular Formula: $C_{26}H_{27}N_3O_3$

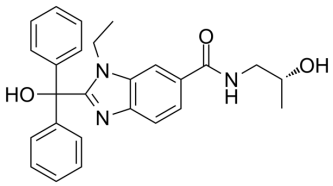
Molecular Weight: 429.51

Target: Others

Pathway: Others

Storage: 4°C, protect from light

* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (116.41 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.3282 mL	11.6412 mL	23.2823 mL
	5 mM	0.4656 mL	2.3282 mL	4.6565 mL
	10 mM	0.2328 mL	1.1641 mL	2.3282 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 (5.82 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (5.82 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.82 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

VY-3-135 is a potent, orally active, and stable ACSS2 inhibitor with an IC_{50} value of 44 nM. VY-3-135 is specific to ACSS2 among the AcCoA synthetase family of enzymes. VY-3-135 does not inhibit ACSS1 or ACSS3 enzymatic activity. VY-3-135 can be used for the research of breast cancer[1].

In Vitro

VY-3-135 (0.1, 1 μM; for 24 hours) blocks acetate dependent labeling of palmitate by 13C2-acetate in $ACSS2^{low}$ A7C11 and $ACSS2^{high}$ Brpkp110 cells[1].

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

In Vivo

VY-3-135 (100 mg/kg/day; PO; 30 days) represses MDA-MB-468 ($ACSS2^{high}$) tumor growth but is mostly ineffective at blocking

WHIM12 (ACSS2^{low}) growth[1].

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

REFERENCES

[1]. Katelyn D Miller, et al. Targeting ACSS2 with a Transition-State Mimetic Inhibits Triple-Negative Breast Cancer Growth. Cancer Res. 2021 Mar 1;81(5):1252-1264.

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

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