MCE MedChemExpress

Product Data Sheet

EG-011

 Cat. No.:
 HY-148683

 CAS No.:
 2377113-41-0

 Molecular Formula:
 $C_{28}H_{26}N_4O_4$

 Molecular Weight:
 482.53

Target: Arp2/3 Complex
Pathway: Cytoskeleton

Storage: Powder -20°C 3 years

In solvent -80°C 6 months

-20°C 1 month

SOLVENT & SOLUBILITY

In Vitro

DMSO: 125 mg/mL (259.05 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	2.0724 mL	10.3621 mL	20.7241 mL
	5 mM	0.4145 mL	2.0724 mL	4.1448 mL
	10 mM	0.2072 mL	1.0362 mL	2.0724 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: ≥ 2.08 mg/mL (4.31 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (4.31 mM); Clear solution
- 3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (4.31 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

EG-011 is the first-in-class and potent Wiskott-Aldrich syndrome protein (WASP) activator. EG-011 activates the auto-inhibited form of WASP with strong actin polymerization. EG-011 has selective anti-tumor activity in lymphomas $^{[1][2][3]}$.

In Vitro

EG-011 (500 nM, 2 μ M; 72h) causes a dose-dependent increase in cell death (20-55%) in lymphoma cell lines (OCI-LY-19 and REC1). EG-011 (1, 10 mM; for 24h, 48h) has no cytotoxicity in PBMCs from two healthy donors^[1].

EG-011 (500 nM, 5 μ M; 24h) causes an increase in actine polymerization in EG-011 sensitive (VL51) and not in resistant (Z138) cell lines at 4, 8 and 24h with both concentrations [2].

 ${\tt MCE}\ has\ not\ independently\ confirmed\ the\ accuracy\ of\ these\ methods.\ They\ are\ for\ reference\ only.$

In Vivo

EG-011 (200 mg/kg; i.p.; 5 days per week) delays tumor growth (Day 6, Day 7, Day 9) and tumor weight in female NOD-SCID mice with the MCL REC-1 cell line. EG-011-treated tumors are 2.2-fold smaller than controls (P<0.001)^[1].

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

REFERENCES

[1]. E. Gaudio, et al. EG-011 IS A NOVEL SMALL MOLECULE WITH IN VITRO AND IN VIVOANTI-TUMOR ACTIVITY AGAINST LYMPHOMA. Hematological OncologyVolume 37: 15th International Conference on Malignant Lymphoma Palazzo dei Congressi, Lugano, Switzerland, 18-22 June, 2019.

[2]. Filippo Spriano, et al. Abstract 1817: EG-011 is a first-in-class Wiskott-Aldrich syndrome protein (WASp) activator with anti-tumor activity. Cancer Res (2022) 82 (12_Supplement): 1817.

[3]. F. Spriano, et al. The first-in-class WASP activator EG-011 is active in lymphoma and multiple myeloma cell lines resistant to FDA approved compounds. European Journal of Cancer 174S1 (2022) S3-S128.

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

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