SZABO SCANDIC

Part of Europa Biosite

Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic

VER-155008

Cat. No.: HY-10941

CAS No.: 1134156-31-2

Molecular Formula: $C_{25}H_{23}Cl_2N_7O_4$

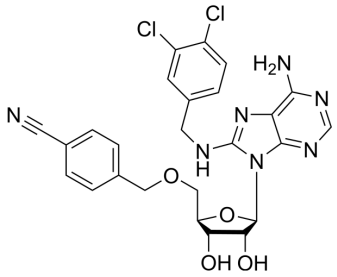
Molecular Weight: 556.4

Target: HSP; Autophagy

Pathway: Cell Cycle/DNA Damage; Metabolic Enzyme/Protease; Autophagy

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 : ≥ 37 mg/mL (66.50 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Concentration \ Solvent \ Mass	1 mg	5 mg	10 mg
1 mM	1.7973 mL	8.9863 mL	17.9727 mL
5 mM	0.3595 mL	1.7973 mL	3.5945 mL
10 mM	0.1797 mL	0.8986 mL	1.7973 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 (4.49 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (4.49 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (4.49 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

VER-155008 is an inhibitor of Hsp70, with IC_{50}s of 0.5 μM, 2.6 μM, and 2.6 μM for Hsp70, Hsc70 and Grp7, respectively, and with a K_d of 0.3 μM for Hsp70.

IC_{50} & Target

HSP70	HSC70	Grp78
0.5 μM (IC_{50})	2.6 μM (IC_{50})	2.6 μM (IC_{50})

In Vitro	VER-155008 is an inhibitor of Hsc70 and Hsp70, with IC_{50}s of 0.5 μM, 2.6 μM, and 2.6 μM for Hsp70, Hsc70 and Grp7, respectively, a with a K_d of 0.3 μM for Hsp70, but shows no activities against Hsp90, with an IC_{50} of >200 μM. VER-155008 inhibits the proliferation of a variety of human colon and breast tumor cell lines, such as BT474, MB-468, HCT116 and HT29 cells, with GI_{50}s of 10.4 μM, 14.4 μM, 5.3 μM, and 12.8 μM, respectively. VER-155008 (5-40 μM) induces client protein degradation in HCT116 and BT474 carcinoma cells. VER-155008 also induces apoptosis in human tumor cell lines[1]. VER-155008 (0.05-5 μM) reverses Aβ-induced axonal degeneration in cultured neurons[2]. VER-155008 (10 μM or 25 μM) inhibits Hsp70 and suppresses the proliferation of LNCaP95 cells. VER-155008 also reduces full-length androgen receptor (AR-FL) and androgen receptor splice variant 7 (AR-V7) protein expression[3]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	VER-155008 (25 mg/kg, i.v.) exhibits plasma clearance in naive female BALB/c mice. VER-155008 (40 mg/kg, i.v.) also shows rapid plasma clearance, and reduces the tumor levels in the HCT116 tumor bearing nude BALB/c mice[1]. VER-155008 (10 μ mol/kg/day, i.p.) rescues memory deficits, and reduces axonal swelling associated with amyloid plaques in 5XFAD mice. VER-155008 (89.9 μmol/kg/day, i.p.) penetrates into the brain after administration in 5XFAD mice. VER-155008 also decreases amyloid plaques and PHF-tau associated with amyloid plaques in 5XFAD mice[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

PROTOCOL

Cell Assay [2]	Embryos are removed from a pregnant ddY mouse at 14 days of gestation. Cells are treated with or without 10 μM Aβ25-35 for 3 days, followed by the addition of 0.05, 0.5, or 5 μM VER-155008 or vehicle solution (0.1% DMSO) for 4 days. The Aβ25-35 is incubated at 37°C for 4 days prior to treatment to facilitate aggregation. The cells are fixed with 4% paraformaldehyde and immunostained at 4°C for 24 h with antibodies against the axonal marker, mouse phosphorylated neurofilament heavy subunit, and against the neuronal marker, rabbit microtubule-associated protein 2. Alexa Fluor 488-conjugated goat anti-mouse IgG (1:400) and Alexa Fluor 568-conjugated goat anti-rabbit IgG (1:400) are used as secondary antibodies. Fluorescence images (864.98 μm × 645.62 μm) are captured using a fluorescence microscopy system. The lengths of the pNF-H-positive axons are measured using MetaMorph version 7.8[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
Animal Administration [1]	Female BALB/c mice are dosed intravenously with 25 mg/kg VER-155008 into the lateral tail vein as a solution in 10% DMSO/5% Tween 80/85% saline (v/v/v). Animals are sacrificed at 5, 15 and 30 min, 1, 2, 4 and 6 h post dose[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Sci Adv. 2022 Jun 10;8(23):eabm7981.
- Redox Biol. 2024 Jan 24, 103035.
- Phytother Res. 2018 Jul;32(7):1320-1331.
- Mol Plant Pathol. 2021 Oct 20.
- J Biol Chem. 2023 May 11;104814.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Massey AJ, et al. A novel, small molecule inhibitor of Hsc70/Hsp70 potentiates Hsp90 inhibitor induced apoptosis in HCT116 colon carcinoma cells. Cancer Chemother Pharmacol. 2010 Aug;66(3):535-45.

[2]. Yang X, et al. Heat Shock Cognate 70 Inhibitor, VER-155008, Reduces Memory Deficits and Axonal Degeneration in a Mouse Model of Alzheimer's Disease. Front Pharmacol. 2018 Jan 30;9:48.

[3]. Kita K, et al. Heat shock protein 70 inhibitors suppress androgen receptor expression in LNCaP95 prostate cancer cells. Cancer Sci. 2017 Sep;108(9):1820-1827.

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