Proteins

WEHI-539 hydrochloride

Cat. No.: HY-15607A CAS No.: 2070018-33-4 Molecular Formula: $C_{31}H_{30}CIN_5O_3S_2$

Molecular Weight: 620.18

Target: **Bcl-2 Family** Pathway: **Apoptosis**

Storage: 4°C, sealed storage, away from moisture

* In solvent: -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)

Product Data Sheet

SOLVENT & SOLUBILITY

In Vitro

DMSO: 16.67 mg/mL (26.88 mM; Need ultrasonic)

H₂O: < 0.1 mg/mL (ultrasonic; warming; heat to 60°C) (insoluble)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	1.6124 mL	8.0622 mL	16.1244 mL
	5 mM	0.3225 mL	1.6124 mL	3.2249 mL
	10 mM	0.1612 mL	0.8062 mL	1.6124 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 (4.03 mM); Clear solution
- 2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (4.03 mM); Suspended solution

BIOLOGICAL ACTIVITY

Description	WEHI-539 hydrochloride is a selective inhibitor of Bcl-XL with an IC $_{50}$ of 1.1 nM.		
IC ₅₀ & Target	Bcl-xL 1.1 nM (IC ₅₀)		
In Vitro	WEHI-539 hydrochloride is a selective inhibitor of Bcl- X_L . WEHI-539 augments NSC 241240 induced caspase 3/7 activity, PARP cleavage and annexin V labelling. WEHI-539 as a single agent causes noticeable PARP cleavage in Ovcar-4 (5 μ M in Ovcar-4.) and Ovsaho (1 μ M in Ovsaho) cells ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.		

PROTOCOL

Cell Assay [2]

Ovcar-8, Ovcar-3, Ovcar-4 and Ovsaho cells are grown in the RPMI, Igrov-1, Cov-362 and Cov-318 cells are grown in DMEM and Fuov-1 cells are grown in DMEM/F-12 nutrient mixture. ABT-737, ABT-199 and WEHI-539 (Medchem Express, NJ, USA), are prepared as a 20 mM solution in DMSO. For cell growth assays, cells are plated in 96 wells plate (5,000 cells/well for all cell lines except Ovcar-8 which is plated at a density of 2,500 cells/well). The next day, cells are treated with drugs. After 72 h the culture medium is removed and the cells are fixed with 100 μ L of cold 10 % Trichloroacetic acid (TCA), incubated on ice for 30 min and stained with 0.4 % sulforhodamine B (SRB). The data are analysed by using Graphpad Prism 4 software. Nonlinear regression is used to fit a four parameters Hill equation. For drug combinations studies the cells are exposed simultaneously to a range of concentrations of NSC 241240 combined with fixed concentration of BH3 mimetics that is expected from the single agent studies to cause 5 % growth inhibition: ABT-737, 1 μ M in Ovcar-8, Ovcar-3 and Igrov-1, 2 μ M in Ovcar-4 and Ovsaho and 6 μ M in Cov-362; ABT-199, 1 μ M in Ovcar-4, 2 μ M in Ovcar-3, Igrov-1, Cov-362 and Ovsaho and 3 μ M in Ovcar-8; WEHI-539, 0.2 μ M in Igrov-1, 0.3 μ M in Ovcar-8, 1 μ M in Ovcar-3 and Ovsaho, 3.1 μ M in Cov-362 and 5 μ M in Ovcar-4. Surviving cell number is assessed by SRB staining. A combination index (CI) is calculated^[2].

CUSTOMER VALIDATION

- Nature. 2017 Nov 9;551(7679):247-250.
- Cell. 2014 Dec 18;159(7):1549-62.
- Nat Biotechnol. 2018 Feb;36(2):179-189.
- Blood. 2014 Dec 4;124(24):3587-96.
- Nat Commun. 2016 Mar 9;7:10916.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Lessene G, et al. Structure-guided design of a selective BCL-X(L) inhibitor. Nat Chem Biol. 2013 Jun;9(6):390-7.

[2]. Abed MN, et al. Antagonism of Bcl-XL is necessary for synergy between NSC 241240 and BH3 mimetics in ovarian cancer cells. J Ovarian Res. 2016 Apr 14;9:25.

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

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