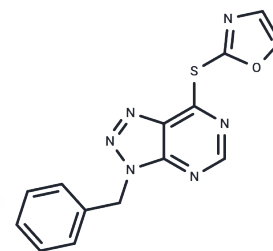


VAS 3947

Chemical Properties

CAS No. : 869853-70-3
 Formula: C₁₄H₁₀N₆O₂
 Molecular Weight: 310.33
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.



Biological Description

Description	VAS 3947 is a specific inhibitor of NADPH oxidase (NOX). VAS 3947 has a potent anti-platelet effect, inducing apoptosis through UPR activation, mainly due to protein aggregation and misfolding, independent of anti-NOX activity.
Targets(IC50)	Apoptosis, NADPH, NADPH-oxidase
In vitro	VAS 3947 induces apoptosis independently of anti-NOX activity, via UPR activation, mainly due to aggregation and misfolding of proteins.[1] VAS 3947 (30 μM) does not interfere with xanthine/XOD-derived L012 signals, suggesting this compound is free of antioxidant or scavenging effects relevant to ROS detection.[4] VAS 3947 attenuates platelet activation and thrombus formation via a NOX-independent pathway downstream of PKC3.[5]

Solubility Information

Solubility	DMSO: 90 mg/mL (290.01 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 3.3 mg/mL (10.63 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.2224 mL	16.1119 mL	32.2238 mL
5 mM	0.6445 mL	3.2224 mL	6.4448 mL
10 mM	0.3222 mL	1.6112 mL	3.2224 mL
50 mM	0.0644 mL	0.3222 mL	0.6445 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

- El Dor M, et al. VAS3947 Induces UPR-Mediated Apoptosis through Cysteine Thiol Alkylation in AML Cell Lines. *Int J Mol Sci.* 2020 ; 21(15):5470.
- Hecht N, et al. Opening NADPH oxidase inhibitors for in vivo translation. *Eur J Pharm Biopharm.* 2017 ; 115:206-217.
- Schramm A, et al. Targeting NADPH oxidases in vascular pharmacology. *Vascul Pharmacol.* 2012 ; 56(5-6):216-231.
- Wind S, et al. Comparative pharmacology of chemically distinct NADPH oxidase inhibitors. *Br J Pharmacol.* 2010 ; 161(4):885-898.
- Lu WJ, et al. VAS2870 and VAS3947 attenuate platelet activation and thrombus formation via a NOX-independent pathway downstream of PKC. *Sci Rep.* 2019 ; 9(1):18852.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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