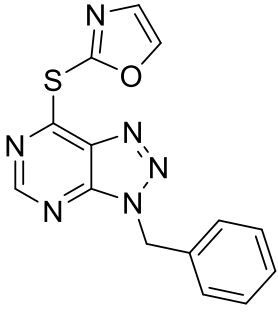


Product data sheet



MedKoo Cat#: 526646 Name: VAS3947 CAS#: 869853-70-3 Chemical Formula: C ₁₄ H ₁₀ N ₆ OS Exact Mass: 310.0637 Molecular Weight: 310.335	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years. In solvent: -80°C 3 months; -20°C 2 weeks.

1. Product description:

VAS3947 is a selective inhibitor of NADPH oxidase activity in low micromolar concentrations, interfering neither with ROS detection nor with XOD or eNOS activities. VAS3947 induces apoptosis in AML cells independently of its anti-NOX activity.

2. CoA, QC data, SDS, and handling instruction

SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under “QC And Documents” section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	100.0	322.24

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	3.22 mL	16.11 mL	32.22 mL
5 mM	0.64 mL	3.22 mL	6.44 mL
10 mM	0.32 mL	1.61 mL	3.22 mL
50 mM	0.06 mL	0.32 mL	0.64 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator

Please refer the product web page under section of “Calculator”

6. Recommended literature which reported protocols for in vitro and in vivo study

In vitro study

1. El Dor M, Dakik H, Polomski M, Haudebourg E, Brachet M, Gouilleux F, Prié G, Zibara K, Mazurier F. VAS3947 Induces UPR-Mediated Apoptosis through Cysteine Thiol Alkylation in AML Cell Lines. *Int J Mol Sci.* 2020 Jul 31;21(15):5470. doi: 10.3390/ijms21155470. PMID: 32751795; PMCID: PMC7432790.

2. Wind S, Beuerlein K, Eucker T, Müller H, Scheurer P, Armitage ME, Ho H, Schmidt HH, Wingler K. Comparative pharmacology of chemically distinct NADPH oxidase inhibitors. *Br J Pharmacol.* 2010 Oct;161(4):885-98. doi: 10.1111/j.1476-5381.2010.00920.x. PMID: 20860666; PMCID: PMC2970907.

In vivo study

TBD

7. Bioactivity

Biological target:

VAS 3947, a specific NADPH oxidase (NOX) inhibitor, exerts a potent antiplatelet effect that induces apoptosis independently of anti-NOX activity, via UPR activation, mainly due to aggregation and misfolding of proteins.

Product data sheet



In vitro activity

To determine the cytotoxic effects of VAS3947, eight AML cell lines, covering M0 to M5 stages of the French–American–British (FAB) classification, were treated with increasing concentrations (0.5 μM to 20 μM) of this inhibitor for 72 h. An average dose of 4 μM VAS3947 was chosen for the following experiments. After only 1 day-exposure at this concentration, all cell lines showed reduced cell numbers compared to their corresponding controls, and the difference increased over time. The VAS3947-induced decrease in cell proliferation was mostly explained by apoptosis for KG-1a, KG-1, ML-2, and MV-4-11 cells. The absence of NOX activity in THP-1 and its induction by phorbol 12-myristate 13-acetate (PMA) was confirmed, which, however, is efficiently inhibited by VAS3947. Thus, VAS3947 reduces cell growth and induces cell death in the absence of NOX activity, thereby suggesting possible off-target effects.

Reference: Int J Mol Sci. 2020 Jul 31;21(15):5470. <https://pubmed.ncbi.nlm.nih.gov/32751795/>

In vivo activity

TBD

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.