

Product Name: VAS 2870

Catalog No.: 6654

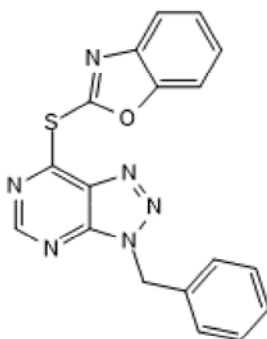
Batch No.: 1

CAS Number: 722456-31-7

IUPAC Name: 7-(2-Benzoxazolylthio)-3-(phenylmethyl)-3H-1,2,3-triazolo[4,5-d]pyrimidine

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₈H₁₂N₆OS
Batch Molecular Weight: 360.39
Physical Appearance: White solid
Solubility: DMSO to 100 mM
Storage: Store at +4°C
Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.8% purity
¹H NMR: Consistent with structure
Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	59.99	3.36	23.32
Found	60.08	3.32	23.27

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

NADPH oxidase (Nox) inhibitor. Inhibits PMA-stimulated oxidative burst in HL-60 cells (IC₅₀ = 2 μM). Inhibits oxidized-LDL-mediated, but not basal, ROS production in HUVECs in vitro. Also inhibits PDGF-mediated Nox activation and ROS formation in vascular smooth muscle cells (VSMCs) and abolishes PDGF-dependent migration of VSMCs, while having no effect on proliferation. Enhances TGF-β-induced apoptosis of liver tumor cells. Also inhibits platelet aggregation through a NOX-independent mechanism.

Physical and Chemical Properties:

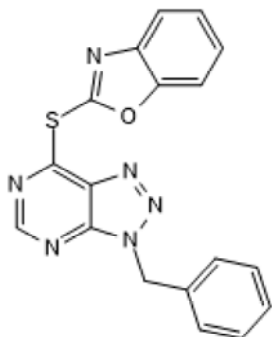
Batch Molecular Formula: C₁₈H₁₂N₆OS

Batch Molecular Weight: 360.39

Physical Appearance: White solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Lu et al (2019) VAS2870 and VAS3947 attenuate platelet activation and thrombus formation via a NOX-independent pathway downstream of PKC *Sci.Rep.* **9** 18852. PMID: 31827142.

Sancho and Fabregat et al (2011) The NADPH oxidase inhibitor VAS2870 impairs cell growth and enhances TGF-β-induced apoptosis of liver tumor cells. *Biochem.Pharmacol.* **81** 917. PMID: 21276422.

Stielow et al (2006) Novel Nox inhibitor of oxLDL-induced reactive oxygen species formation in human endothelial cells. *Biochem.Biophys.Res.Commun.* **344** 200. PMID: 16603125.

ten Freyhaus et al (2006) Novel Nox inhibitor VAS2870 attenuates PDGF-dependent smooth muscle cell chemotaxis, but not proliferation. *Cardiovasc.Res.* **71** 331. PMID: 16545786.

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