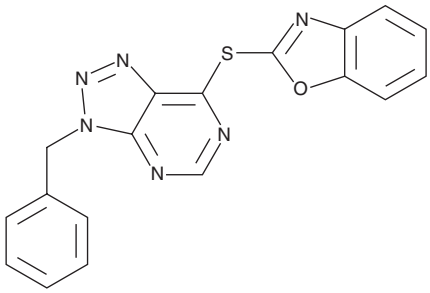
PRODUCT INFORMATION

VAS2870

Item No. 19205

CAS Registry No.: 722456-31-7
Formal Name: 7-(2-benzoxazolylthio)-3-(phenylmethyl)-3H-1,2,3-triazolo[4,5-d]pyrimidine
MF: $C_{18}H_{12}N_6OS$
FW: 360.4
Purity: ≥98%
UV/Vis.: λ_{max}: 284 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

VAS2870 is supplied as a crystalline solid. A stock solution may be made by dissolving the VAS2870 in the solvent of choice, which should be purged with an inert gas. VAS2870 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of VAS2870 in these solvents is approximately 25 and 30 mg/ml, respectively.

VAS2870 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, VAS2870 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. VAS2870 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

VAS2870 is a selective inhibitor of the NADPH oxidases.[1-4] Pre-incubation of rat vascular smooth muscle cells with VAS2870 abolishes platelet-derived growth factor-dependent chemotaxis without affecting cell cycle progression (IC_{50} = 10 µM).[1] At low (2.8 mM), but not high (16.7 mM), concentrations of glucose, treatment with VAS2870 (20 µM) increases glucose-stimulated insulin secretion of rat pancreatic islets by 70%.[5] It significantly reduces production of reactive oxygen species in mouse brain, rat vascular smooth muscle culture, and human umbilical vein endothelial cells.[1,6,7] Treatment with VAS2870 pre- or post-ischemia is neuroprotective in mouse brain.[6] VAS2870 inhibits vasculogenesis of mouse embryonic stem cell cultures and inhibits cell proliferation of rat hepatoma cells.[8,9]

References

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