

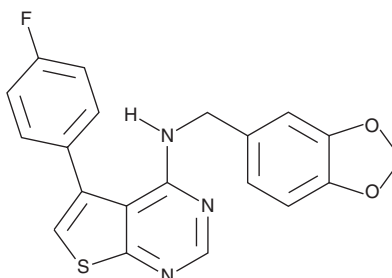
PRODUCT INFORMATION



AEM1

Item No. 18321

CAS Registry No.: 1030123-90-0
Formal Name: N-(1,3-benzodioxol-5-ylmethyl)-5-(4-fluorophenyl)-thieno[2,3-d]pyrimidin-4-amine
MF: C₂₀H₁₄FN₃O₂S
FW: 379.4
Purity: ≥98%
UV/Vis.: λ_{max}: 283 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

AEM1 is supplied as a crystalline solid. A stock solution may be made by dissolving the AEM1 in the solvent of choice, which should be purged with an inert gas. AEM1 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of AEM1 in these solvents is approximately 0.25, 20, and 30 mg/ml, respectively.

AEM1 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, AEM1 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. AEM1 has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

AEM1 is an inhibitor of gene expression induced by nuclear erythroid 2-related factor 2 (Nrf2).¹ It reduces Nrf2-dependent expression of the genes encoding superoxide dismutase 1 (SOD1), heme oxygenase 1 (HO-1), thioredoxin (Trx), glutamate-cysteine ligase (GCLM), and glutathione peroxidase 2 (GPX2), as well as decreases glutathione (GSH) content in A549 cells when used at 5 μM. AEM1 enhances *tert*-butyl hydroperoxide-induced A549 cell death. *In vivo*, AEM1 (50 mg/kg) reduces tumor volume in an A549 mouse xenograft model.

Reference

1. Bollong, M.J., Yun, H., Sherwood, L., *et al.* A small molecule inhibits deregulated NRF2 transcriptional activity in cancer. *ACS Chem. Biol.* **10(10)**, 2193-2198 (2015).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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