

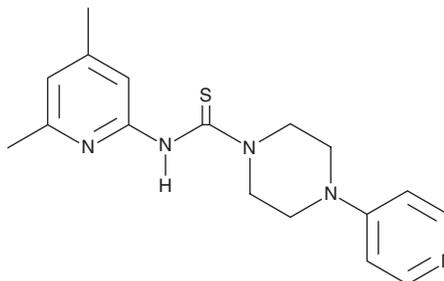
PRODUCT INFORMATION



PHGDH-inactive

Item No. 19717

CAS Registry No.: 1914971-16-6
Formal Name: N-(4,6-dimethyl-2-pyridinyl)-4-(4-pyridinyl)-1-piperazinecarbothioamide
Synonym: 3-Phosphoglycerate Dehydrogenase-inactive
MF: C₁₇H₂₁N₅S
FW: 327.5
Purity: ≥98%
UV/Vis.: λ_{max}: 278, 351 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

PHGDH-inactive is supplied as a crystalline solid. A stock solution may be made by dissolving the PHGDH-inactive in the solvent of choice, which should be purged with an inert gas. PHGDH-inactive is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of PHGDH-inactive in these solvents is approximately 5 and 2 mg/ml, respectively.

PHGDH-inactive is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, PHGDH-inactive should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. PHGDH-inactive has a solubility of approximately 0.16 mg/ml in a 1:5 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

PHGDH-inactive is an inactive analog of the 3-phosphoglycerate dehydrogenase (PHGDH) inhibitors NCT-502 (Item No. 19716) and NCT-503 (Item No. 19718).¹ Unlike the inhibitors, PHGDH-inactive does not inhibit PHGDH *in vitro* (IC₅₀s = >57, 3.7, and 2.5 μM for PHGDH-inactive, NCT-502, and NCT-503, respectively), block serine synthesis in cells, or kill PHGDH-dependent cell lines.¹ PHGDH-inactive is intended to serve as a negative control for NCT-502 and NCT-503.

Reference

1. Pacold, M.E., Brimacombe, K.R., Chan, S.H., *et al.* A PHGDH inhibitor reveals coordination of serine synthesis and one-carbon unit fate. *Nat. Chem. Biol.* **12**(6), 452-458 (2016).

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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