

PRODUCT INFORMATION



TNP-470

Item No. 16449

CAS Registry No.: 129298-91-5

Formal Name: N-(2-chloroacetyl)-carbamic acid, (3R,4S,5S,6R)-5-methoxy-4-[(2R,3R)-2-methyl-3-(3-methyl-2-buten-1-yl)-2-oxiranyl]-1-oxaspiro[2.5]oct-6-yl ester

Synonyms: AGM-1470, O-(Chloroacetyl-carbamoyl) Fumagillol, NSC 642492

MF: C₁₉H₂₈ClNO₆

FW: 401.9

Purity: ≥98%

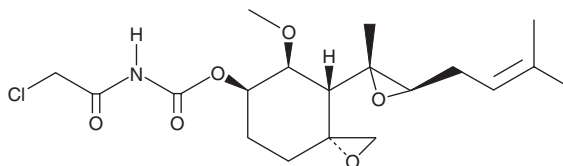
Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥4 years

Special Conditions: Hygroscopic

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



Laboratory Procedures

TNP-470 is supplied as a crystalline solid. A stock solution may be made by dissolving the TNP-470 in the solvent of choice, which should be purged with an inert gas. TNP-470 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of TNP-470 in these solvents is approximately 10 mg/ml.

TNP-470 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, TNP-470 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. TNP-470 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

TNP-470 is a synthetic analog of fumagillin (Item No. 11332) that inhibits angiogenesis. It irreversibly inactivates methionine aminopeptidase-2 (MetAP2; IC₅₀ = 2 μM), blocking endothelial cell proliferation *in vitro* and angiogenesis *in vivo*.¹⁻³ It is without effect on MetAP1.¹ TNP-470 has therapeutic potential in cancer and microsporidiosis.^{3,4}

References

1. Chen, X., Xie, S., Bhat, S., *et al.* Fumagillin and fumarranol interact with *P. falciparum* methionine aminopeptidase 2 and inhibit malaria parasite growth *in vitro* and *in vivo*. *Chem. Biol.* **16(2)**, 193-202 (2009).
2. Yanase, T., Tamura, M., Rujita, K., *et al.* Inhibitory effect of angiogenesis inhibitor TNP-470 on tumor growth and metastasis of human cell lines *in vitro* and *in vivo*. *Cancer Res.* **53(11)**, 2566-2570 (1993).
3. Drahl, C., Cravatt, B.F., and Sorensen, E.J. Protein-reactive natural products. *Angew. Chem. Int. Ed. Engl.* **44(36)**, 5788-5809 (2005).
4. Gervaz, P. and Fontollet, C. Therapeutic potential of the anti-angiogenesis drug TNP-470. *Int. J. Exp. Pathol.* **79(6)**, 359-362 (1998).

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.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 02/09/2024

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM