

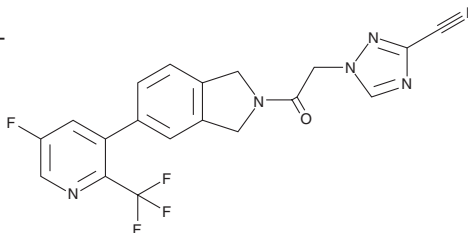
PRODUCT INFORMATION



CT3

Item No. 39416

CAS Registry No.: 2403729-27-9
Formal Name: 1-[2-[5-[5-fluoro-2-(trifluoromethyl)-3-pyridinyl]-1,3-dihydro-2H-isoindol-2-yl]-2-oxoethyl]-1H-1,2,4-triazole-3-carbonitrile
Synonym: Cyanotriazole 3
MF: C₁₉H₁₂F₄N₆O
FW: 416.3
Purity: ≥98%
Supplied as: A 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

CT3 is supplied as a solid. A stock solution may be made by dissolving the CT3 in the solvent of choice, which should be purged with an inert gas. CT3 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of CT3 in DMSO and DMF is approximately 15 and 25 mg/ml, respectively. CT3 is slightly soluble in ethanol.

Description

CT3 is a cyanotriazole antiparasitic.¹ It is active against *T. b. brucei*, *T. b. gambiense*, *T. b. rhodesiense*, *T. cruzi*, and *L. donovani* (EC₅₀s = 180, 31, 57, 78, and 134 nM, respectively). CT3 (4 μM) inhibits nuclear, but not kinetoplastid, DNA replication in the bloodstream form of *T. b. brucei*. It inhibits *T. cruzi* topoisomerase II but not human topoisomerase II-α. CT3 (30 mg/kg per day for five days) eradicates *T. cruzi* in a mouse model of Chagas disease. It also eradicates the *T. b. brucei* strain STIB975 at stage I and stage II in a mouse model of African trypanosomiasis when administered at a dose of 10 mg/kg for four or seven days, respectively.

Reference

1. Rao, S.P.S., Gould, M.K., Noeske, J., *et al.* Cyanotriazoles are selective topoisomerase II poisons that rapidly cure trypanosome infections. *Science* **380**(6652), 1349-1356 (2023).

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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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