

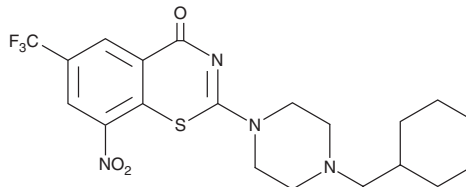
PRODUCT INFORMATION



PBTZ169

Item No. 22202

CAS Registry No.: 1377239-83-2
Formal Name: 2-[4-(cyclohexylmethyl)-1-piperazinyl]-8-nitro-6-(trifluoromethyl)-4H-1,3-benzothiazin-4-one
MF: C₂₀H₂₃F₃N₄O₃S
FW: 456.5
Purity: ≥98%
UV/Vis.: λ_{max}: 246, 342 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

PBTZ169 is supplied as a crystalline solid. A stock solution may be made by dissolving the PBTZ169 in the solvent of choice, which should be purged with an inert gas. PBTZ169 is soluble in organic solvents such as dimethyl formamide and chloroform. The solubility of PBTZ169 in these solvents is approximately 0.5 and 1 mg/ml, respectively. PBTZ169 is also slightly soluble in ethanol and DMSO.

Description

PBTZ169 is an antibiotic with antimycobacterial activity.^{1,2} It is an irreversible inhibitor of DprE1, an essential enzyme for cell wall synthesis in mycobacteria.² PBTZ169 is active against *M. tuberculosis* *in vitro* (MIC = ≤0.19 ng/ml) without inducing cytotoxicity in Vero cells when used at concentrations up to 125 μM.^{1,2} It reduces the bacterial burden in the lung and spleen in a mouse model of chronic tuberculosis when administered at a dose of 50 mg/kg per day.

References

1. Peng, C.T., Gao, C., Wang, N.Y., *et al.* Synthesis and antitubercular evaluation of 4-carbonyl piperazine substituted 1,3-benzothiazin-4-one derivatives. *Bioorg. Med. Chem. Lett.* **25(7)**, 1373-1376 (2015).
2. Makarov, V., Lechartier, B., Zhang, M., *et al.* Towards a new combination therapy for tuberculosis with next generation benzothiazinones. *EMBO Mol. Med.* **6(3)**, 372-383 (2014).

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, 11/14/2022

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