

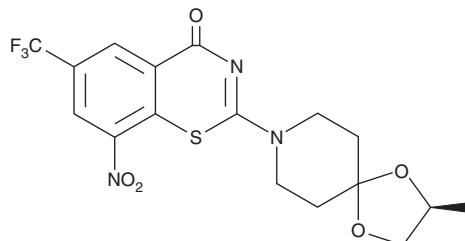
PRODUCT INFORMATION



BTZ043

Item No. 22930

CAS Registry No.: 1161233-85-7
Formal Name: 2-[(2S)-2-methyl-1,4-dioxo-8-azaspiro[4.5]dec-8-yl]-8-nitro-6-(trifluoromethyl)-4H-1,3-benzothiazin-4-one
MF: C₁₇H₁₆F₃N₃O₅S
FW: 431.4
Purity: ≥98%
UV/Vis.: λ_{max}: 211, 245, 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

BTZ043 is supplied as a crystalline solid. A stock solution may be made by dissolving the BTZ043 in the solvent of choice. BTZ043 is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of BTZ043 in these solvents is approximately 1 mg/ml.

Description

BTZ043 is an antibiotic with antimycobacterial activity.¹ It targets mycobacterial cell wall synthesis by inhibiting DprE1, which, in conjunction with DprE2, catalyzes the epimerization of decaprenylphosphoryl ribose to decaprenylphosphoryl arabinose. BTZ043 is active against various *Mycobacterium* species *in vitro*, including *M. smegmatis*, *M. bovis*, and *M. tuberculosis* (MICs = 4, 2, and 1 ng/ml, respectively), as well as the actinobacterium *N. brasiliensis* (MIC₅₀ = 0.125 µg/ml).^{1,2} It is also active against *M. tuberculosis* in RAW 264.7 murine macrophages (MIC = <10 ng/ml).¹ BTZ043 (37.5 or 300 mg/kg for four weeks) reduces the number of viable *M. tuberculosis* cells in lung and spleen in a mouse model of chronic tuberculosis infection.

References

1. Makarov, V., Manina, G., Mikusova, K., *et al.* Benzothiazinones kill *Mycobacterium tuberculosis* by blocking arabinan synthesis. *Science* **324**(5928), 801-804 (2009).
2. Vera-Cabrera, L., Campos-Rivera, M.P., Gonzalez-Martinez, N.A., *et al.* *In vitro* activities of the new antitubercular agents PA-824 and BTZ043 against *Nocardia brasiliensis*. *Antimicrob. Agents Chemother.* **56**(7), 3984-3985 (2012).

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