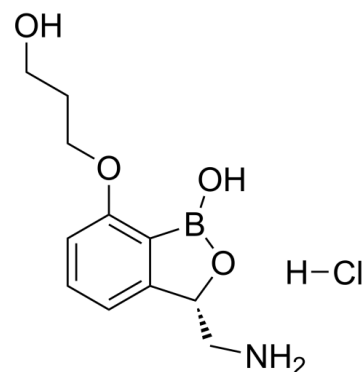


Data Sheet

Product Name:	Epetraborole (hydrochloride)
Cat. No.:	CS-5750
CAS No.:	1234563-16-6
Molecular Formula:	C ₁₁ H ₁₇ BClNO ₄
Molecular Weight:	273.52
Target:	Aminoacyl-tRNA Synthetase; Bacterial
Pathway:	Anti-infection; Metabolic Enzyme/Protease
Solubility:	DMSO : 200 mg/mL (731.21 mM; Need ultrasonic); H ₂ O : ≥ 28 mg/mL (102.37 mM)



BIOLOGICAL ACTIVITY:

Epetraborole (GSK2251052) hydrochloride is a novel **leucyl-tRNA synthetase (LeuRS)** inhibitor (**IC₅₀**=0.31 μM), thereby inhibiting protein synthesis. Epetraborole hydrochloride can be used in multidrug-resistant gram-negative pathogens infection research^{[1][2][3]}. **IC₅₀ & Target:** IC₅₀: 0.31 μM (LeuRS)^[3] **In Vitro:** Epetraborole (0-32 μg/mL) shows anti-bacterial activity against key gram-negative aerobic and anaerobic pathogens and gram-positive anaerobes^[1].

References:

- [1]. Goldstein EJ, et al. Comparative in vitro activities of GSK2251052, a novel boron-containing leucyl-tRNA synthetase inhibitor, against 916 anaerobic organisms. *Antimicrob Agents Chemother.* 2013 May;57(5):2401-4.
- [2]. O'Dwyer K, et al. Bacterial resistance to leucyl-tRNA synthetase inhibitor GSK2251052 develops during treatment of complicated urinary tract infections. *Antimicrob Agents Chemother.* 2015 Jan;59(1):289-98.
- [3]. Sutcliffe JA. Antibiotics in development targeting protein synthesis. *Ann N Y Acad Sci.* 2011 Dec;1241:122-52.

CAIndexNames:

1-Propanol, 3-[[[(3S)-3-(aminomethyl)-1,3-dihydro-1-hydroxy-2,1-benzoxaborol-7-yl]oxy]-], hydrochloride (1:1)

SMILES:

CCCCOC1=C(B(O)O[C@@H]2CN)C2=CC=C1.[H]Cl

Caution: Product has not been fully validated for medical applications. For research use only.

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