

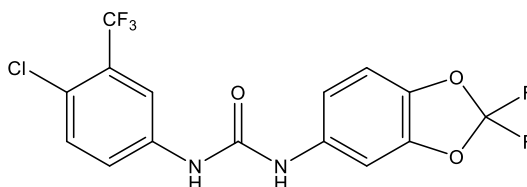
Catalog # 10-3960

PK150

CAS# 2165324-62-7

1-(4-Chloro-3-(trifluoromethyl)phenyl)-3-(2,2-difluorobenzo[d][1,3]dioxol-5-yl)urea

Lot # FBA6180



PK150 is a Sorafenib analog that displays significant antibacterial activity against several pathogenic strains (*S.aureus* NCTC8325, MIC = 0.3 μ M; vancomycin -resistant enterococci, MIC = 3 μ M; and *M.tuberculosis* MIC = 2 μ M). It was inactive against Gram-negative bacteria. It effectively reduced persister cells in ciprofloxacin-treated stationary *S.aureus* cultures and effectively eradicated staphylococcus biofilms. PK150 did not develop antibacterial resistance in an agar-plate-based assay. Its antibacterial properties were attributed to demethylmenaquinone methyltransferase (MenG) inhibition and signal peptidase IB (SpsB) activation. PK150 displayed *in vivo* efficacy in a murine bloodstream infection model against methicillin-sensitive *S. aureus* and a neutropenic mouse thigh model against methicillin-resistant *S. aureus* strain ATCC33591. Inactive against a panel of over 250 human kinases.

- 1) Le *et al.* (2019) *Repurposing human kinase inhibitors to create an antibiotic active against drug-resistant Staphylococcus aureus, persists and biofilms*; Nat. Chem. **12** 145

PHYSICAL DATA

Molecular Weight:	394.68
Molecular Formula:	C ₁₅ H ₈ ClF ₅ N ₂ O ₃
Purity:	>99% by HPLC
	NMR: (Conforms)
Solubility:	DMSO (>25 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied at -20°C for up to 1 year from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 1 month.

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