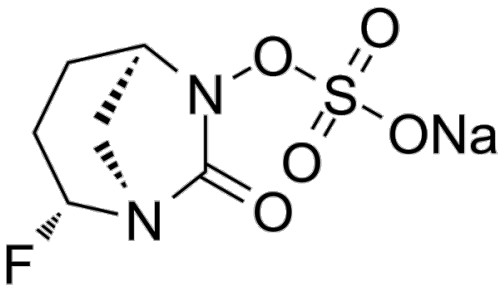
Product Data Sheet

Product Name: ANT3310 sodium
Cat. No.: GC66045

Chemical Properties

Cas. No.	2410688-61-6		
Formula	$C_6H_8FN_2NaO_5S$	M.Wt	262.19
Solubility	DMSO : 250 mg/mL (953.51 mM; Need ultrasonic)	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		

Structure



Background

ANT3310 sodium is a broad-spectrum covalent **Serine β-Lactamase** inhibitor, with **IC_{50}** values ranging from 1 nM to 175 nM (a panel of Serine β-Lactamase). ANT3310 sodium potentiates activity

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of β-lactam antibiotics against Carbapenem-Resistant Enterobacterales (CRE) and *Acinetobacter baumannii* (CRAB). ANT3310 sodium can be used in the research of bacterial infection [1][2].

ANT3310 sodium (Compound 21, 0.006 to 3 000 nM, 10 min) inhibits a series of Serine β-Lactamase (AmpC, CTX-M-15, TEM-1, OXA-48, OXA-23, and KPC-2), with $IC_{<>50}$ values ranging from 1 nM to 175 nM[1].
ANT3310 sodium shows a low *in vitro* cytotoxicity ($IC_{<>50}$: > 100 μM) in HepG2 cell, cardiotoxicity (inhibition of the hERG potassium ion channel), and genotoxicity (Ames test)[1].

ANT3310 sodium (intravenous injection, 25-100 mg/kg, at 1, 3, 5, and 7 h postinfection) reduces bacterial burdens in murine thigh infection model[1].
ANT3310 sodium (intravenous injection, 1 mg/kg, Male Swiss albino mice) shows a $T_{1/2}$ value of 0.64 h, AUC value of 412 ng•h/mL, and Cl value of 40 mL/min/kg (pharmacokinetic assay)[1].

Animal Model:	Murine thigh infection model[1]
Dosage:	25, 50, and 100 mg/kg
Administration:	Intravenous injection, at 1, 3, 5, and 7 h postinfection
Result:	Reduced bacterial burdens (colony forming units, CFU) in a dose-dependent manner to levels below that of the initial starting inoculum at the highest dose, when treated with the combination of MEM.

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