

## Product Data Sheet

Product Name: ANT3310 sodium

Cat. No.: GC66045

### Chemical Properties

Cas. No. 2410688-61-6

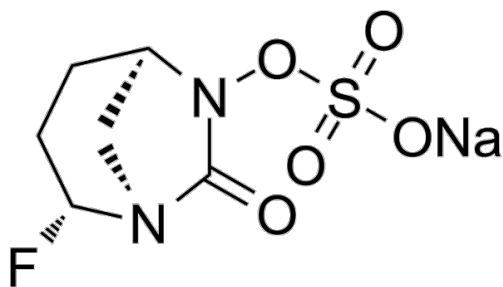
Formula  $C_6H_8FN_2NaO_5S$  M.Wt 262.19

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  $\beta$ -Lactamase** inhibitor, with **IC<sub>50</sub>** values ranging from 1 nM to 175 nM (a panel of Serine  $\beta$ -Lactamase). ANT3310 sodium potentiates activity

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

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of  $\beta$ -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  $\beta$ -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  $\mu$ M) 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.

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