

Catalog Number: CM01191

## 产品信息

**Catalog Number:**  
CM01191

**CAS号:**  
1192491-61-4

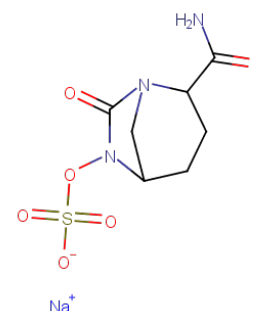
**分子式:**  
C<sub>7</sub>H<sub>10</sub>N<sub>3</sub>NaO<sub>6</sub>S

**主要靶点:**  
Antibiotic|Antibacterial

**主要通路:**  
微生物学|微生物学

**分子量:**  
287.22

**溶解度:**

 Ethanol:< 1 mg/mL (insoluble or slightly soluble);DMSO:16.67 mg/mL (58.04 mM);H<sub>2</sub>O:52 mg/mL (181.05 mM)


## 靶点活性

TEM1:8 nM|P99:80 nM|KPC2:38 nM

## 体外活性

方法: 产 KPC 的肺炎克雷伯菌用 Avibactam sodium (1-64 mg/L) 和 Ceftazidime (0.0625-512 mg/L) 处理, 通过 broth microdilution method 测定 MICs。结果: CAZ-AVI 易感菌株和 CAZ-AVI 耐药菌株的 Ceftazidime MIC 值与 Avibactam 浓度的增加几乎呈对数线性下降。[1]

## 体内活性

方法: 为检测体内抗感染活性, 将 Avibactam sodium (4-24 mg/kg, 每 2 h 到每 12 h) 和 Ceftazidime 皮下注射给绿脓杆菌感染的 CD-1 小鼠。结果: 给药 Avibactam q2h 明显更有效, 将 Avibactam 静效的日剂量降低了 2.7 和 10.1 倍, 而两种方案的给药间隔中游离药物浓度保持在 1 mg/L 阈值浓度以上产生抑菌作用的平均百分比相似, 平均值为 21.6 (q2h) 和 18.5 (q8h)。[2]

## 动物实验

Avibactam is reconstituted in sterile water to a stock solution of 5,120 mg/L and the further solution is prepared in Mueller-Hinton broth. Outbred female CD-1 mice, 7 to 8 weeks old and weighing 20 to 25 g, are used in the experiments. Eight dose combinations are used. For the thigh-infected animals, the combinations of Ceftazidime and Avibactam are 16/4, 8/1, 64/32, and 2/128 mg/kg. For the Lung-infected mice, combinations of 32/16, 4/2, 128/8, and 1/64 mg/kg of the respective constituents are used. These combinations are chosen in order to detect possible pharmacokinetic interactions between the two compounds (Ceftazidime and Avibactam) and to cover a wide range of doses of each compound.

## 细胞实验

Avibactam is prepared in sterile water[2]. Cells (~10<sup>9</sup> cfu) from overnight broth culture are spread on Mueller-Hinton agar supplemented with either (i) Ceftaroline plus Avibactam (1 or 4 mg/L) at 1-16× the MICs or (ii) Ceftaroline at 1 or 4 mg/L plus Avibactam at 1-8× the concentration needed to reduce the Ceftaroline MIC to 1 or 4 mg/L. Colonies are counted after overnight incubation and representatives are retained[2].

## 储存

keep away from direct sunlight | Powder: -20°C for 3 years | In solvent: -80°C for 1 year | Shipping with blue ice.