CPO20240006 is an **OXA-181-producing *Klebsiella pneumoniae*** strain from Denmark isolated in 2024

Sequence type:
ST29

Genotype:

Antimicrobial agent	Resistance gene/mutations
Carbapenems	*bla* $_{\text{OXA-181}}$
Third generation cephalosporins	*bla* $_{\text{CTX-M-15}}$, *bla* $_{\text{SHV-187}}$
Other beta-lactams	*bla* $_{\text{TEM-1C}}$
Colistin	Not detected
Fluoroquinolones	*oqxA, oqxB, qnrB6, qnrS1*
Aminoglycosides	*aac(3)-IId, aac(6')-Ib-cr, aadA16*
Tetracyclines	Not detected
Trimethoprim	*dfrA27*
Sulphonamide	*sul1*
Fosfomycin	*fosA6*

Phenotype:

Antimicrobial agent	Reference MIC (mg/L)	Reference inhibition zone (mm)[1]	Interpretation[2]	WT/NWT[3]
Piperacillin-tazobactam	>64	6-8	R	NWT
Cefiderocol	ND	25-29	S	WT
Cefotaxime	>8	6	R	NWT
Ceftazidime	>16	6	R	NWT
Ceftazidime-avibactam	0.5	21-24	S	ECOFF NA
Ceftolozane-tazobactam	>16	12-14	R	NWT
Ertapenem	>2	16-20	R	NWT
Imipenem	2	22-25	S	WT/NWT (borderline)
Imipenem-relebactam	1[4]	22-25	S	ECOFF NA
Meropenem	1-2	20-25[5]	S	NWT
Meropenem-vaborbactam	1	22-26	S	ECOFF NA
Aztreonam	>16	6	R	NWT
Aztreonam-avibactam	0.125	26-31	S	WT
Ciprofloxacin	>4	6-8	R	NWT
Levofloxacin	>4	9-11	R	NWT
Amikacin	≤1	21-25	S	WT
Gentamicin	>16	6-9	R	NWT
Tobramycin	4-8	14-16[5]	R	NWT
Colistin	0.5	-	S	WT
Trimethoprim-sulfamethoxazole	>16	6	R	NWT

ND: not determined; NA: not available.

[1]Using EUCAST disk diffusion methodology (https://www.eucast.org/ast_of_bacteria/disk_diffusion_methodology)

[2]SIR-categorization according to The European Committee on Antimicrobial Susceptibility Testing. Breakpoint tables for interpretation of MICs and zone diameters. Version 15.0, 2025. https://www.eucast.org.

[3]Categorization into wild type (WT) or non-wild type (NWT) according to available epidemiological cut-off values (ECOFF) available at https://mic.eucast.org/

[4]Although relebactam primarily inhibits class A and C beta-lactamases, the compound has a weak in vitro inhibitory effect also on OXA-48* carbapenemases in Enterobacterales, and MICs for imipenem-relebactam may be 1-3 dilutions lower than for imipenem alone, especially if imipenem MICs are only moderately raised.

[5]Inhibition zones are close to the breakpoint, increasing the risk of erroneous SIR categorisation.

Report created: **2025-Sep-29**