

Table 1.8 Different classes of carbapenemase

	Class A	Metallo-β-lactamase	OXA carbapenemase
Molecular class	Class A	Class B	Class D
Functional class	2f	3	2d
Gene location	Usually transposon	Usually plasmid	Usually plasmid
Examples	KPC ¹ GES SME IMI/NMC ¹	IMP ¹ VIM ¹ NDM ¹	OXA-23, 24, 51, 58 (types in <i>Acinetobacter</i> spp.) ² OXA-48, 181, 232 (types in <i>Enterobacteriaceae</i>) ¹
Found in	<i>Enterobacteriaceae</i>	Non-fermenters and <i>Enterobacteriaceae</i>	Non-fermenters and <i>Enterobacteriaceae</i>
Inhibited by	Clavulanate and tazobactam	EDTA	No effective inhibitor
Active site	Serine	Zinc ion	Serine
Carbapenem	Hydrolysed	Hydrolysed	Hydrolysed
Aztreonam	Hydrolysed	Not hydrolysed	Not hydrolysed
Early β -lactam	Hydrolysed	Hydrolysed	Hydrolysed
Extended spectrum cephalosporin	Hydrolysed (except SME)	Hydrolysed	Hydrolysed poorly

Note:

¹ Seen in HK

² Common in HK