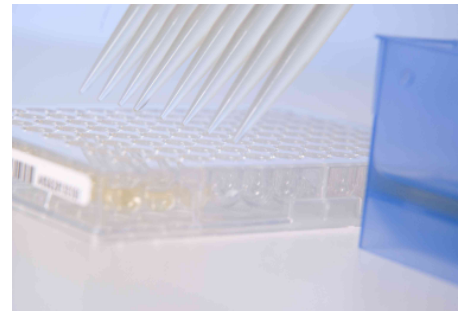


MICRONAUT-S β -Lactamase VI

Phenotypical detection of multiple β -Lactamases (multiple resistance determinants) in a single test system

Based on the micro-dilution procedure MICRONAUT-S provides the phenotypical detection of clinically relevant cephalosporinases and carbapenemases at entero-bacteria and non-fermenters.



- ▼ Resistance determination of all relevant gram-negative bacteria (enterobacteria, Aeromonas, non-fermenters) against 5 antibiotics and 7 antibiotics combinations in a standard micro-dilution procedure
- ▼ Phenotypical detection of **MBL (Metallo- β -Lactamases)** by resistance determination against Meropenem as a mono substance and in combination with the divalent cationic chelator EDTA
- ▼ Phenotypical detection of **ESBL (Extended Spectrum β -Lactamases)** by the susceptibility testing with 3 extended spectrum cephalosporins and their combination with Clavulan acid
- ▼ Phenotypical detection of **KPC (*Klebsiella pneumoniae* carbapenemase)** by resistance determination against Meropenem as a mono substance and in combination with 3- Amino-Phenyl-Borat (3- APB)
- ▼ Phenotypical detection of **AMP-C (Aminopenicillin inactivating cephalosporins)** by the susceptibility testing with 3 extended spectrum cephalosporins and their combination with 3- Amino-Phenyl-Borat (3- APB)
- ▼ Analysis and interpretation after visual or automated reading
- ▼ MICRONAUT software for the analysis and interpretation after automated reading with:
 1. Indication of confirmed resistance mechanisms (ESBL/ MBL/ KPC/ AMP-C) by MIC quotient assessment
 2. Phenotypical confirmation of resistance mechanisms even at the occurrence of multiple β -Lactamases

Layout of the MICRONAUT-S β -Lactamase VI plate

	1	2	3	4	5	6	7	8	9	10	11	12	Abbr.	Antibiotics
A	CEP	CMC	CAZ	CZC	CZB	CTX	C/C	CTB	MER	MEE	MEB	COX	CEP	Cefepim
	32	32/4	32	32/4	32	32	32/4	32	128	32	32	64	CMC	Cefepim/ Clavulan acid
B	CEP	CMC	CAZ	CZC	CZB	CTX	C/C	CTB	MER	MEE	MEB	COX	CAZ	Ceftazidim
	16	16/4	16	16/4	16	16	16/4	16	64	16	16	32	CZC	Ceftazidim/ Clavulan acid
C	CEP	CMC	CAZ	CZC	CZB	CTX	C/C	CTB	MER	MEE	MEB	COX	CZB	Ceftazidim + 350 μ g/ml 3- APB
	8	8/4	8	8/4	8	8	8/4	8	32	8	8	16	CTX	Cefotaxim
D	CEP	CMC	CAZ	CZC	CZB	CTX	C/C	CTB	MER	MEE	MEB	COX	C/C	Cefotaxim/ Clavulan acid
	4	4/4	4	4/4	4	4	4/4	4	16	4	4	8	CTB	Cefotaxim + 350 μ g /ml 3- APB
E	CEP	CMC	CAZ	CZC	CZB	CTX	C/C	CTB	MER	MEE	MEB	COX	MER	Meropenem
	2	2/4	2	2/4	2	2	2/4	2	8	2	2	4	MEE	Meropenem + 0,4 mM EDTA
F	CEP	CMC	CAZ	CZC	CZB	CTX	C/C	CTB	MER	MEE	MEB	GC/B	MEB	Meropenem + 350 g/ml 3- APB
	1	1/4	1	1/4	1	1	1/4	1	4	1	1		COX	Cefoxitin
G	CEP	CMC	CAZ	CZC	CZB	CTX	C/C	CTB	MER	MEE	MEB	GC/E	GC/B	Growth control + 350 μ g/ml 3- APB
	0,5	0,5/4	0,5	0,5/4	0,5	0,5	0,5/4	0,5	2	0,5	0,5		GC/E	Growth control + 0,4 mM EDTA
H	CEP	CMC	CAZ	CZC	CZB	CTX	C/C	CTB	MER	MEE	MEB	GC	GC	Growth control
	0,25	0,25/4	0,25	0,25/4	0,25	0,25	0,25/4	0,25	1	0,25	0,25			