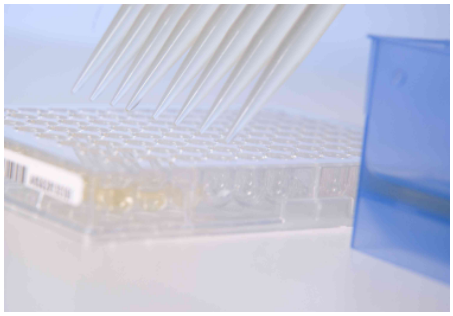
MERLIN Gesellschaft für mikrobiologische Diagnostika GmbH

MICRONAUT-S ß-Lactamase VI

Phenotypical detection of multiple ß-Lactamases (multiple resistence 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.



- Resistence determination of all relevant gram-negative bacteria (Enterobacteria, Aeromonades, non-fermenters) against 5 antibiotics and 7antibiotics combinations in a standard micro-dilution procedure
- Phenotypical detection of **MBL (Metallo- ß-Lactamases)** by resistence determination against Meropenem as a mono substance and in combination with the divalent cationic chelator EDTA
- Phenotypical detection of **ESBL (Extended Spectrum ß-Lactamases)** by the susceptibility testing with 3 extended spectrum cephalosporins and their combination with Clavulan acid
- Phenotypical detection of **KPC (Klebsiella pneumoniae Carbapenemase)** by resistence 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 resistence mechanisms (ESBL/ MBL/ KPC/ AMP-C) by MHK quotient assessment
  2. Phenotypcal confirmation of resistence mechanisms even at the occurrence of multiple ß-Lactamases

Layout of the MICRONAUT-S ß-Lactamase VI plates

	1	2	3	4	5	6	7	8	9	10	11	12
A	CEP 32	CMC 32/4	CAZ 32	CZC 32/4	CZB 32	CTX 32	C/C 32/4	CTB 32	MER 128	MEE 32	MEB 32	COX 64
B	CEP 16	CMC 16/4	CAZ 16	CZC 16/4	CZB 16	CTX 16	C/C 16/4	CTB 16	MER 64	MEE 16	MEB 16	COX 32
C	CEP 8	CMC 8/4	CAZ 8	CZC 8/4	CZB 8	CTX 8	C/C 8/4	CTB 8	MER 32	MEE 8	MEB 8	COX 16
D	CEP 4	CMC 4/4	CAZ 4	CZC 4/4	CZB 4	CTX 4	C/C 4/4	CTB 4	MER 16	MEE 4	MEB 4	COX 8
E	CEP 2	CMC 2/4	CAZ 2	CZC 2/4	CZB 2	CTX 2	C/C 2/4	CTB 2	MER 8	MEE 2	MEB 2	COX 4
F	CEP 1	CMC 1/4	CAZ 1	CZC 1/4	CZB 1	CTX 1	C/C 1/4	CTB 1	MER 4	MEE 1	MEB 1	GC/B
G	CEP 0,5	CMC 0,5/4	CAZ 0,5	CZC 0,5/4	CZB 0,5	CTX 0,5	C/C 0,5/4	CTB 0,5	MER 2	MEE 0,5	MEB 0,5	GC/E
H	CEP 0,25	CMC 0,25/4	CAZ 0,25	CZC 0,25/4	CZB 0,25	CTX 0,25	C/C 0,25/4	CTB 0,25	MER 1	MEE 0,25	MEB 0,25	GC

Abbr.	Antibiotics
CEP	Cefepim
CMC	Cefepim/ Clavulan acid
CAZ	Ceftazidim
CZC	Ceftazidim/ Clavulan acid
CZB	Ceftazidim + 350 µg/ml 3- APB
CTX	Cefotaxim
C/C	Cefotaxim/ Clavulan acid
CTB	Cefotaxim + 350 µg /ml 3- APB
MER	Meropenem
MEE	Meropenem + 0,4 mM EDTA
MEB	Meropenem + 350 g/ml 3- APB
COX	Cefoxitin
GC/B	Growth control + 350 µg/ml 3- APB
GC/E	Growth control + 0,4 mM EDTA
GC	Growth control