

NG-TEST[®] CARBA 5 Competitive Matrix

PRODUCT FEATURES	NG-TEST [®] CARBA 5, NG Biotech						Xpert [®] Carba-R, Cepheid				Rapidec [®] CarbaNP, BioMerieux		BD [™] MAX Check Points CPO, BD	
														
Sample Type	Colonies from agar media						Colonies, rectal swab or perirectal swab				Colonies		Rectal swab	
Validated Agar Media	Blood, MacConkey, HardyCHROM [™] CRE						Blood, MacConkey				Blood agar		Eswab	
Sample Storage	Colonies from agar media up to three days after incubation						Colonies in sample reagent or swabs in transport tube for up to 5 days				Fresh only		Swabs in transport tube	
Target Species	Enterobacterales						Enterobacterales				Enterobacterales		Gram-negative bacteria	
	<i>Pseudomonas aeruginosa</i>						<i>Pseudomonas aeruginosa</i>				<i>Pseudomonas aeruginosa</i>			
							<i>Acinetobacter baumannii</i>							
Incubation Time	15 minutes						50 min				1h - 2.5h		3 h	
Cost per Test	\$24						\$60-\$80				\$10		Unknown	
Performance for each Agar type	Blood Agar		MacConkey Agar		HardyCHROM [™] CRE Agar		Blood Agar		MacConkey Agar		Blood Agar		Compared to chromID	
Organism group	Sensitivity	Specificity	Sensitivity	Specificity	Sensitivity	Specificity	Sensitivity	Specificity	Sensitivity	Specificity	Sensitivity	Specificity	Sensitivity	Specificity
Enterobacteriaceae	100%	96%	100%	96%	100%	100%	100%	98.10%	100%	96.20%	99.60%	96.60%	n/a	n/a
<i>Pseudomonas aeruginosa</i>	100%	95%	100%	95%			100%	96.90%	100%	96.90%	100%	100%	n/a	n/a
<i>Acinetobacter baumannii</i>	n/a	n/a	n/a	n/a			100%	100%	100%	100%	n/a	n/a	n/a	n/a
Overall	100%	95%	100%	95%			100%	98.1%	100%	97.1%	99.6%	97.4%	95.1%	99.4%
Differentiators	After discrepant analysis, all results were 100% for CARBA 5 in clinical trial. Specificity appears reduced initially, but this is because more Carbapenemases were detected by NG-TEST [®] CARBA 5 than the comparator method; the comparator method was unable to detect some enzyme variants.						More expensive than Carba 5. Currently does not detect all IMP enzymes (reduced sensitivity of test). Training required. Takes longer from colony.				Does not differentiate enzyme type - only presence / absence		Does not differentiate between VIM and IMP	