

Biochemical Identification Scheme for Gram-negative Bacteria

Organism Name	TSI (S/B)	H ₂ S	Gas	Indole	MR	VP	Citrate	Urease	Motility	Oxidase
<i>Escherichia coli</i>	A/A	-	+	+	+	-	-	-	+	-
<i>Klebsiella pneumoniae</i>	A/A	-	+	-	-	+	+	+	(v)	-
<i>Klebsiella oxytoca</i>	A/A	-	+	+	-	+	+	+	(v)	-
<i>Pseudomonas aeruginosa</i>	K/K	-	-	-	-	-	+	-	+	+
<i>Acinetobacter baumannii</i> complex	K/K	-	-	-	-	-	+	(v)	-	-
<i>Proteus mirabilis</i>	K/A	+	+	-	+	-	+	(v)	+	-
<i>Morganella</i> spp.	K/A	-	+	+	+	-	-	+	+	-
<i>Citrobacter</i> spp.	A/A or K/A	+/-	+	-	+	-	+	-	(v)	+
<i>Serratia</i> spp.	K/A or A/A	-	-	-	-	+	+	(v)	-	(v)
<i>Salmonella</i> Typhi	K/A	+	-	-	+	-	-	-	+	-
<i>Salmonella</i> Paratyphi	K/A	-	+	-	+	-	-	-	+	-

Key: S/B = Slant/Butt; A = Acidic; K = Alkaline; + = Positive; - = Negative; v = Variable; w = Weak reaction.