SPECIES:	Gram	Motile	Oxidase	Gel Hydrolysis	Starch Hydrolysis	Urease	MR	VP	Indole	Citrate	H2S Product	P.R. & Glucose	Durham Gas	P.R. Lactose	P.R. Mannitol	P.R. Sucrose	P.R. Xylose	P.R. L-Arab	P.R. Sorbitol	P.R. Ethanol
Kluyvera ascorbata	-	+	-	-	-	-	+	-	+	+	-	+	+	+	+	+	+	+	variable	-
Enterobacter aerogenes	-	+	-	-	-	-	-	+	-	+	-	+	+	+	+	+	+	+	+	-
Yersinia intermedia	-	+	-	-	-	+	-	+	-	+	-	+	-	-	+	+	+	+	+	-
Escherichia coli	-	+/-	-	-	-	-	+	-	+	-	-	+	+	+	+	variable	+	+	+	-
Klebsiella pneumoniae	-	-	-	-	+/-	-	+	-	-	+	-	+	+	+	+	+	+	+	+	-
Proteus vulgaris	-	+	-	slight	+/-	+	+	-	+	-	+	+	+	-	-	+	+	-	-	-
Salmonella typhimurium	-	+	-	slight	-	-	+	-	-	+	+	+	+	-	+	-	+	+	+	-
Pseudomonas aeruginosa	-	+	+	+/-	+/-	-	-	-	-	+	-	-	-	-	-	-	+/-	-	-	-
Pseudomonas fluorescens	-	+	+	+	+/-	-	-	-	-	+/-	-	-	-	-	-	-	+/-	+	-	-
Providencia stuartii	-	+	-	-	-	-	+	-	+	+/-	-	+	-	-	+/-	+/-	-	-	-	-
Shigella flexnarii	-	-	-	-	-	-	+	-/+	-	-	-	+	-/+	-/+	+/-	-	--	+	-	-
Proteus mirabilis	-	+	-	+/-	-	+	+	-	-	+	+	+	+	-	-	-	+	-	-	-
Erwinia carotovara	-	+	-	slight	-	-	+	+	-	-	-	+	-	+	+	+	+	+	+	-
Acetobacter aceti	-	+	-	-	-	ND	ND	ND	-	ND	ND	+		-	-	-	+	ND	-	+
Azotobacter chroococum	-	+	+	-	+	ND	ND	ND	ND	+	ND	+	+	+	ND	+	ND	ND	+	+
Citrobacter freundii	-	+	-	-	-	-	+	-	-	+	+	+	+	+	+	+	+	+	+	-
Hafnia	-	+	+	-	-	-	+	+	-	-	-	-	-	-	-	-	+	-	-	-
Edwardsiella tarda	-	+	-/+	-	-	-	+	-	+	-	+	+		-	-	-	+/-	+/-	-	-
Yersinia enterocolitica	-	+	-	-	+	-	+	+	-	-	-	+	-	+	+	+	-	+	+	+/-
Vibrio cholerae	-	-	+	+	+	ND	Variable	Variable	Variable	Variable	ND	+	-	-	+	+	-	-	-	-

+ = Acid (yellow)
- = growth, no Acid
ND = No Data

	TSI SLANT face	TSI SLANT butt	TSI SLANT Gas	Nitrate Reductase	Phenylab. Deamin.	Decarb. Base	Decarb. Lysine	Decarb. ARG	Decarb. Orn	Growth KCN	ON PG
Kluyvera ascorbata	ND	ND	ND	+	-	+	-	-	+	+	+
Enterobacter aerogenes	A	A	-	+	-	+	-	+	+	+	+
Yersinia intermedia	ND	ND	ND	+	-	+	-	+	-	-	+
Escherichia coli	A	A	+	+	-	+	+	+	+	-	+
Klebsiella pneumoniae	A	A	+	+	-	+	+	-	+/-	+/-	+/-
Proteus vulgaris	A	A	+/-	+	+	-	-	-	+	+	-
Salmonella typhimurium	A	A	+	+/-	-	+	+	+	+	+	+/-
Pseudomonas aeruginosa	K	K	+/-	+ (W_2 gas)	-		NOT VALID			very slow	ND
Pseudomonas fluorescens	K	K	+/-	-	-					very slow	ND
Providencia stuartii	A	K	+/-	+	+	-	-	-	-	+	-
Shigella flexnarii	ND	ND	--	+	-	+	-	-	-	-	-/+
Proteus mirabilis	K	K	+/-	+	+	+	-	-	+	+	-
Erwinia carotovara	A	K	-	+	-	+	-	-	-	very slow	ND
Acetobacter aceti	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND
Azotobacter chroococum	ND	ND	ND	-	ND	ND	ND	ND	ND	ND	ND
Citrobacter freundii	A	A	G	+	-	+	-	+	-	-	-
Hafnia	ND	ND	ND	+	+		NOT VALID			+	+/-
Edwardsiella tarda	K	A	+	+	-	+	+	-	+	+slow	-
Yersinia enterocolitica	A	A	-	+	-	+	-	-	+	-	+
Vibrio cholerae	ND	ND	ND	+	ND	+	-	+	+	ND	+

TSI SLANT
A = Acid (yellow)
K = Akaline (pink)
ND = No data

purple + = purple
+ = yellow
yellow
purple

-- = purple
yellow