

Characteristics	1	2	3	4	5
Gram stain	+	+/v	+	-	+
Cell ends	Slightly tapered	Tapered	Rounded	Rounded/Slightly tapered	Rounded
Spore shape	Ellipsoidal/Circular	Ellipsoidal/Circular	Circular	Ellipsoidal	Ellipsoidal
Spore position	Paracentral (Subterminal)	Paracentral (Subterminal)	Subterminal	Central/Paracentral/(subterminal)	Subterminal(Paracentral)
Sporangia swollen	+	+	w	w	w
Growth at 50 °C	-	+	-	-	+
Anaerobic growth	+	+	+	+	+
Hydrolysis of gelatin	-	-	-	+	v
Storage inclusions	+	+	+	-	-
ONPG	+	+	+	v	-
Urease	-	-	-	-	-
Nitrate reduction to N <sub>2</sub>	+	v	-	+	+
Acid production from:					
L-arabinose	+	-	-	-	-
Amygdalin	+	v	-	-	v
D-cellobiose	+	-	-	-	v
Glycerol	-	-	-	-	v
Glycogen	-	-	-	+	-
Lactose	+	+	-	-	-
D-mannitol	+	-	-	+	v
D-melibiose	+	+	-	-	-
Methyl- $\alpha$ -D-glucoside	-	v	-	w	-
Raffinose	+	v	-	-	-
Ribose	-	v	-	w	v
Salicin	-	+	-	-	-
Starch	+	v	-	+	-
Sucrose	+	v	-	+	-