

Supplementary Materials

Biochemical tests results for PHA-producing bacteria

Table S1: Biochemical tests results for PHA-producing bacteria isolated from Lake Simbi

Characteristics	Isolate/Observations											
	SO13	SO31	SO75	SE42	SE83	SE84	SE89	SE93	SW32	SW36	SW38	SW62
Colony shape	Circular	Circular	Circular	Circular	Circular	Circular	Circular	Circular	Circular	Circular	Circular	Circular
Color	White	Off-white	Cream	Light orange	Orange	White	Light orange	Light orange	Yellowish	Off white	Yellow	Off-white
Cell shape	Rod	Rod	Rod	Coccus	Coccus	Rod	Coccus	Coccus	Rod	Rod	Rod	Rod
Gram reaction	+	+	+	-	+	+	-	+	+	-	+	+
Catalase	+	+	+	+	+	+	+	+	+	+	+	+
Oxidase	+	-	+	+	+	+	+	+	+	+	+	-
H2S production	+	+	+	-	-	-	-	-	-	-	+	+
Voges Proskauer	+	+	+	-	+	+	-	-	+	-	+	+
Urease activity	-	-	-	+	-	+	+	+	-	-	-	-
Indole production	-	-	-	-	-	+	-	-	-	-	-	-
Citrate utilization	+	+	+	+	+	-	+	+	+	-	+	+
Glucose	+	+	+	+	+	+	+	+	+	+	+	+
Sucrose	+	+	+	+	+	+	+	+	+	+	+	+
Xylose	+	+	+	+	-	+	+	+	+	-	+	+
Lactose	+	+	+	+	-	+	+	+	+	+	+	+
Starch	-	+	+	-	+	+	-	-	-	-	+	+
Maltose	+	+	+	-	+	+	-	-	+	-	+	+
Galactose	-	-	-	-	+	+	-	-	+	+	-	-
Fructose	+	+	+	+	+	+	+	+	+	+	+	+
Mannose	+	+	+	-	+	+	-	-	+	+	+	+
Cellobiose	+	+	+	-	+	+	-	-	+	-	+	+
Glycerol	+	+	+	+	+	+	+	+	+	+	+	+
Mannitol	+	+	+	+	-	+	+	+	-	-	+	+

(+ Positive; - Negative)

Table S2: Biochemical tests results for PHA-producing bacteria isolated from Lake Simbi

Characteristics	Isolate/Observations										
	MO12	MO15	MO22	MO25	ME31	ME32	ME33	ME42	ME51	ME54	ME81
Colony shape	Circular	Circular	Circular	Circular	Circular	Circular	Circular	Circular	Circular	Circular	Circular
Color	Cream	Cream	Yellow	Colorless	Yellow	White	Yellow	Pink	Yellow	Yellow	Cream
Cell shape	Rod	Rod	Rod	Rod	Rod	Rod	Rod	Rod	Rod	Rod	Rod
Gram reaction	+	+	+	-	-	+	+	-	+	+	+
Catalase	+	+	+	+	+	+	+	+	+	+	+
Oxidase	+	+	+	+	+	+	+	+	+	+	+
H ₂ S production	-	-	-	+	+	+	-	+	+	-	-
Voges Proskauer	-	-	-	+	-	+	+	+	+	-	+
Urease activity	+	+	-	-	+	-	-	-	-	-	+
Indole production	-	-	-	-	-	-	-	-	-	-	-
Citrate utilization	-	-	+	-	-	+	+	-	+	+	+
Glucose	+	+	+	+	+	+	+	+	+	+	+
Sucrose	+	+	+	+	+	+	+	+	+	+	+
Xylose	+	+	+	+	+	+	+	+	+	+	+
Lactose	+	+	+	-	+	+	+	-	+	+	+
Starch	-	-	-	-	-	-	-	-	-	-	-
Maltose	-	-	+	+	+	+	+	+	+	+	+
Galactose	+	+	+	+	-	-	+	+	-	+	+
Fructose	+	+	+	-	+	+	+	-	+	+	+
Mannose	+	-	-	+	+	+	+	+	+	-	-
Cellobiose	-	-	+	+	+	+	+	+	+	+	+
Glycerol	+	+	+	+	+	+	+	+	+	+	+
Mannitol	+	+	+	+	-	+	-	+	-	+	-

Table S2. Continued

Characteristics	Isolates/Observations							
	ME82	ME88	MS42	MS44	MS52	MW27	MW52	MW54
Colony shape	Circular	Circular	Circular	Circular	Circular	Circular	Circular	Circular
Color	Light orange	Off-white	Light orange	Yellow	Light orange	Yellow	Cream	Cream
Cell shape	Coccus	Rod	Coccus	Rod	Rod	Rod	Rod	Rod
Gram reaction	+	+	+	+	+	+	+	+
Catalase	+	+	+	+	+	+	+	+
Oxidase	+	+	+	+	+	+	+	+
H ₂ S production	-	-	-	-	-	-	-	-
Voges Proskauer	-	-	-	+	-	-	-	-
Urease activity	+	+	+	-	+	+	+	-
Indole production	-	-	-	-	-	-	-	-
Citrate utilization	+	+	+	+	+	-	-	+
Glucose	+	+	+	+	+	+	+	+
Sucrose	+	+	+	+	+	+	+	+
Xylose	+	+	+	-	+	+	+	+
Lactose	+	+	+	-	+	+	+	+
Starch	-	-	-	+	-	-	-	-
Maltose	+	+	-	+	-	-	-	+
Galactose	+	+	-	+	-	+	+	+
Fructose	+	+	+	+	+	+	+	+
Mannose	-	+	-	+	-	+	-	-
Cellobiose	+	-	-	+	-	-	-	+
Glycerol	+	+	+	+	+	+	+	+
Mannitol	+	+	+	-	+	+	+	-

(+ Positive; - Negative)