

SUPPLEMENTARY MATERIAL

Characteristics and resistance of rhizobacteria of potential hyperaccumulator vegetation to gold mine tailing stress

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Table S1. Phenotypic characterisation of rhizobacteria isolates from the Ratatotok gold mine site, North Sulawesi, Indonesia

Characteristics	Isolate codes															
	A	B	C	D	E	F	G	H	I	J	K	L	M	O	P	Q
Amylum hydrolysis	+	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-
Glucose fermentation	-	-	-	-	-	-	-	-	-	-	+	-	+	+	+	+
Glucose fermentation bubbles	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+
Sucrose fermentation	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
Sucrose fermentation bubbles	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-
Galactose fermentation	+	-	-	-	-	-	-	-	-	+	+	-	+	+	+	+
Galactose fermentation bubbles	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+
Maltose fermentation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maltose fermentation bubbles	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lactose fermentation	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Lactose fermentation bubbles	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Obligate aerobic	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-
Facultative anaerobic	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+	+
Gram negative	+	+	+	+	+	-	+	+	+	+	+	+	+	-	-	-
Gram positive	-	-	-	-	-	+	-	-	-	-	-	-	+	+	+	+
Mono	+	+	+	-	+	+	+	+	+	+	+	+	+	+	+	+
Diplo	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Strepto	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
Bacil	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-
Coccus	+	+	+	+	-	-	+	+	+	+	+	+	+	+	+	+
Endospore	+	+	+	-	-	+	-	+	-	+	-	-	-	-	+	+
Growth in pellicle liquid medium	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-
Growth in sediment liquid medium	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Growth in uniform liquid medium	-	+	+	-	-	-	+	+	+	+	+	+	+	+	+	-
Growth in flocculant liquid medium	+	-	-	+	-	-	-	-	-	-	-	-	-	-	-	+
Growth at pH 4	-	-	-	+	+	-	-	+	-	-	+	-	+	+	+	+
Growth at pH 7	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Growth at pH 9	+	+	+	+	+	+	-	+	+	-	-	-	+	+	+	+
Growth at 5% NaCl	+	-	-	+	+	+	-	+	+	-	+	-	+	+	+	+
Growth at 10% NaCl	-	-	-	+	-	-	-	-	-	-	-	-	-	-	-	-
Catalase	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
H ₂ S production	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+
Indole	-	-	-	-	+	+	-	-	-	-	-	-	-	-	-	-
Growth at a temperature of -4°C	-	-	-	+	+	-	-	+	-	+	-	-	-	+	+	+
Growth at a temperature of 25°C	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Growth at a temperature of 50°C	+	-	-	+	-	+	-	-	-	+	-	-	-	+	+	+
Gelatin	-	+	+	-	+	-	+	-	+	-	-	-	+	-	+	+
Methyl red	-	-	-	+	+	-	-	-	-	+	-	-	+	+	+	+
Voges-Proskauer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
IAA hormone production	-	-	-	+	+	-	-	-	-	-	-	-	+	+	+	+
Growth on echinulate slant agar	+	-	-	-	-	-	-	+	+	-	+	-	-	-	+	+
Growth on filiform slant agar	-	+	+	-	+	+	+	+	-	-	+	-	+	-	-	-
Growth on arborescent slant agar	-	-	-	+	-	-	-	-	-	-	-	-	-	+	-	-
Growth on rhizoid slant agar	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-

Explanations: A, B, C, D = isolates from the rhizosphere of *Swietenia mahagoni*, E, F, G, H, I, J, K, L = isolates from the rhizosphere of *Pteris vittata*, M, O, P, Q = isolates from the rhizosphere of *Syzygium aromaticum*, + = yes, - = no.

Source: own study.