

Supplementary Table 1. Phenotypic characteristics of isolates from SURF cave silver biofilms. Isolates ending in “C” are from CN media, while those ending in “R” are from 0.1X R2A media. Characteristics of colonies and gram-stained cells are listed. Production of acid in glucose phenol red (GPR) broth, production of nitrite in nitrate broth, and presence of catalase and cytochrome oxidase are also listed for each isolate, with w indicating a weak reaction, (+) a moderate positive reaction, and (++) indicating a strong reaction. (a) Isolates from CN media, (b) isolates from R2A media.

Isolate	Colony Color	Colony Shape	Colony Elevation	Colony Luster	Gram Stain	Cell Shape	Cell Arrangement	GPR Acid	Catalase	Oxidase	Nitrite
HS001C	white	circular	raised	muroid	(-)	cocci	single & clusters	w	(-)	(+)	(++)
HS009C	white	circular	raised	muroid	(-)	cocci	single & clusters	w	(-)	(+)	(++)
HS014C	white	circular	raised	muroid	(-)	cocci	single & clusters	w	(-)	(+)	(++)
HS039C	white	circular	raised	muroid	(-)	cocci	single & clusters	(-)	(+)	(+)	(++)
HS017C	white	circular	raised	muroid	(-)	cocci	single & clusters	w	(-)	(+)	(++)
HS125C	white	circular	raised	muroid	(-)	cocci	single & clusters	w	(-)	(+)	(++)
HS062C	white	irregular	flat	NR	(+)	ovoid	chains	w	(++)	(+)	(++)
HS150C	white	irregular	flat	NR	(-)	ovoid	single & clusters	(-)	(++)	(+)	(++)
HS125C	white	round	convex	shiny	(-)	ovoid	NR	(-)	(-)	(-)	(-)
HS153C	white	round	convex	shiny	(-)	ovoid	NR	(-)	(+)	(-)	(-)
HS063C	white	round	convex	shiny	(-)	ovoid	NR	(-)	(-)	(-)	(-)
HS101C	white	round	convex	shiny	(-)	ovoid	NR	(-)	(-)	(-)	(-)
HS130C	white	round	convex	shiny	(-)	ovoid	NR	(-)	(-)	(-)	(-)
HS112C	peach	circular	raised	muroid	(-)	bacilli	single & pairs	(-)	(++)	(+)	(++)
HS022C	peach	circular	raised	muroid	(-)	bacilli	single & pairs	(-)	(++)	(+)	(++)
HS081C	white	circular	raised	muroid	(-)	cocci	single & chains	(-)	(-)	(-)	(-)
HS129C	yellow	round	raised	NR	(+)	cocci	pairs & tetrads	w	(++)	(-)	(-)
HS035C	yellow	round	raised	NR	(+)	cocci	pairs & tetrads	w	(++)	(-)	(-)
HS092C	creamy	round	rhizoid	dull	(-)	bacilli	single & chains	(-)	(++)	(+)	(++)
HS067C	creamy	round	rhizoid	dull	(-)	bacilli	single & chains	(-)	(++)	(+)	(++)
HS067C	whitish	round	raised	dull	(+)	bacilli	mycelia	w	(++)	(-)	(-)
HS117C	yellow	round	wrinked	NR	(+)	bacilli*	mycelia	w	(++)	(+)	(++)
HS050C	yellow	round	wrinked	NR	(+)	bacilli	mycelia	(-)	(++)	(-)	(+)
HS107C	white	rhizoid	flat	dull	(-)	bacilli*	NR	(+)	(++)	(-)	(++)
HS103C	white	lobate	flat	dull	(+/-)	cocci	pairs & chains	w	(++)	(-)	(+)
HS103C	white	round	flat	dull	(-)	bacilli	NR	w	(++)	(+)	(++)
HS138C	cream	lobate	NR	shiny	(+)	ovoid	NR	w	(-)	(+)	(++)