Table 4. Biolog EcoPlates substrate utilization by ice-embedded microbial communities. An absorption threshold value of 0.25 was used for positive growth response after cultivation for 56 days at 4˚C and 36 days at 15˚C. (AA): amino acids; (AM): amines/amides; (CAA): carboxylic & acetic acids; (CH): carbohydrates; (POL): polymers.

Well ID	C-source	Substrate type	1-S		1-L		400-O		900-O		900-I	
			4˚C	15˚C	4˚C	15˚C	4˚C	15˚C	4˚C	15˚C	4˚C	15˚C
A1	*Water (blank)*	-	-	-	-	-	-	-	-	-	-	-
A2	*ß-Methyl-D-Glucoside*	CH	-	-	-	-	+	-	-	-	-	-
A3	*D-Galactonic Acid γ-Lactone*	CAA	+	-	-	-	+	-	-	-	-	-
A4	*L-Arginine*	AA	+	+	-	-	+	-	-	-	-	-
B1	*Pyruvic Acid Methyl Ester*	CH	+	+	+	+	+	+	+	-	-	-
B2	*D-Xylose*	CH	+	+	-	-	-	+	-	-	-	-
B3	*D-Galacturonic Acid*	CAA	+	+	-	-	+	+	-	-	-	-
B4	*L-Asparagine*	AA	+	+	+	-	+	+	-	-	-	-
C1	*Tween 40*	POL	+	+	+	+	+	+	+	+	+	+
C2	*i-Erythritol*	CH	+	+	+	+	+	-	-	-	-	-
C3	*2-Hydroxy Benzoic Acid*	CAA	-	-	+	-	-	-	-	-	-	-
C4	*L-Phenylalanine*	AA	+	-	-	-	+	+	-	-	-	-
D1	*Tween 80*	POL	+	+	+	-	+	+	-	-	-	-
D2	*D-Mannitol*	CH	+	+	+	+	+	+	+	+	-	-
D3	*4-Hydroxy Benzoic Acid*	CAA	+	+	-	-	+	+	-	-	-	-
D4	*L-Serine*	AA	+	+	-	-	+	+	-	-	-	-
E1	*a-Cyclodextrin*	POL	+	-	+	-	+	+	-	-	-	-
E2	*N-Acetyl-D-Glucosamine*	CH	+	+	-	+	+	+	-	-	-	-
E3	*γ-Hydroxybutyric Acid*	CAA	+	+	-	-	+	-	-	-	-	-
E4	*L-Threonine*	AA	+	+	-	-	-	+	-	-	-	-
F1	*Glycogen*	POL	+	-	-	-	-	-	-	-	-	-
F2	*D-Glucosaminic Acid*	CAA	+	+	-	-	+	-	-	-	-	-
F3	*Itaconic Acid*	CAA	+	+	+	-	+	+	-	-	-	-
F4	*Glycyl-L-Glutamic Acid*	AA	+	+	-	-	+	-	-	-	-	-
G1	*D-Cellobiose*	CH	-	-	-	-	+	+	-	-	-	-
G2	*Glucose-1-Phosphate*	CH	-	-	-	-	+	-	-	-	-	-
G3	*a-Ketobutyric Acid*	CAA	+	-	-	-	+	+	-	-	-	-
G4	*Phenylethyl-amine*	AM	-	-	-	-	-	-	-	-	-	-
H1	*a-D-Lactose*	CH	-	-	-	-	+	-	-	-	-	-
H2	*D,L-a-Glycerol Phosphate*	CH	-	-	-	-	-	-	-	-	-	-
H3	*D-Malic Acid*	CAA	+	+	-	-	+	+	-	-	-	-
H4	*Putrescine*	AM	+	+	-	-	-	-	-	-	-	-