

Table S1 Profiles of polar lipids in in thermophilic cyanobacterium *Thermosynechococcus* E542

Lipid Species	Formula	Observed Mass	Calculated Mass
(Fatty acids)			
	[M+CH ₃ COO] ⁻		
MGDG(16:0/18:1)	C ₄₅ H ₈₃ O ₁₂	815.5905	815.5890
MGDG(16:0/16:1)	C ₄₃ H ₇₉ O ₁₂	787.5583	787.5577
MGDG(16:0/16:0)	C ₄₃ H ₈₁ O ₁₂	789.5727	789.5734
MGDG(16:0/19:1)	C ₄₆ H ₈₅ O ₁₂	829.6058	829.6047
MGDG(17:0/18:1)	C ₄₆ H ₈₅ O ₁₂	829.6054	829.6047
MGDG(16:0/17:1)	C ₄₄ H ₈₁ O ₁₂	801.5746	801.5734
MGDG(16:0/18:0)	C ₄₅ H ₈₅ O ₁₂	817.6045	817.6047
MGDG(16:1/18:1)	C ₄₅ H ₈₁ O ₁₂	813.5742	813.5734
MGDG(18:0/18:1)	C ₄₇ H ₈₇ O ₁₂	843.6211	843.6203
MGDG(16:0/17:0)	C ₄₄ H ₈₃ O ₁₂	803.5903	803.5890
MGDG(14:0/16:1)	C ₄₁ H ₇₅ O ₁₂	759.5273	759.5264
MGDG(14:1/16:0)	C ₄₁ H ₇₅ O ₁₂	759.5264	759.5264
MGDG(18:1/18:1)	C ₄₇ H ₈₅ O ₁₂	841.6049	841.6047
MGDG(14:0/16:0)	C ₄₁ H ₇₇ O ₁₂	761.5427	761.5421
MGDG(16:1/16:1)	C ₄₃ H ₇₇ O ₁₂	785.5427	785.5421
MGDG(16:1/19:1)	C ₄₆ H ₈₃ O ₁₂	827.5899	827.5890
MGDG(16:0/20:0)	C ₄₇ H ₈₉ O ₁₂	845.6377	845.6360
MGDG(16:1/17:1)	C ₄₄ H ₇₉ O ₁₂	799.5590	799.5577
MGDG(16:0/18:2)	C ₄₅ H ₈₁ O ₁₂	813.5745	813.5734
MGDG(12:0/16:0)	C ₃₉ H ₇₃ O ₁₂	733.5108	733.5108
MGDG(16:0/19:0)	C ₄₆ H ₈₇ O ₁₂	831.6220	831.6203
MGDG(18:0/19:1)	C ₄₈ H ₈₉ O ₁₂	857.6384	857.6360
MGDG(18:1/19:1)	C ₄₈ H ₈₇ O ₁₂	855.6200	855.6203
MGDG(15:0/16:1)	C ₄₂ H ₇₇ O ₁₂	773.5404	773.5421

MGDG(14:0/17:1)	C ₄₂ H ₇₇ O ₁₂	773.5430	773.5421
MGDG(17:1/18:1)	C ₄₆ H ₈₃ O ₁₂	827.5923	827.5890
MGDG(17:1/19:1)	C ₄₇ H ₈₅ O ₁₂	841.6069	841.6047
MGDG(12:0/16:1)	C ₃₉ H ₇₁ O ₁₂	731.4958	731.4951
MGDG(16:0/16:2)	C ₄₃ H ₇₇ O ₁₂	785.5433	785.5421
[M+CH ₃ COO] ⁻			
DGDG(16:0/18:1)	C ₅₁ H ₉₃ O ₁₇	977.6424	977.6418
DGDG(16:0/16:1)	C ₄₉ H ₈₉ O ₁₇	949.6112	949.6105
DGDG(16:0/16:0)	C ₄₉ H ₉₁ O ₁₇	951.6271	951.6262
DGDG(16:0/19:1)	C ₅₂ H ₉₅ O ₁₇	991.6585	991.6575
DGDG(17:0/18:1)	C ₅₂ H ₉₅ O ₁₇	991.6587	991.6575
DGDG(16:0/17:1)	C ₅₀ H ₉₁ O ₁₇	963.6274	963.6262
DGDG(16:0/18:0)	C ₅₁ H ₉₅ O ₁₇	979.6575	979.6575
DGDG(16:1/18:1)	C ₅₁ H ₉₁ O ₁₇	975.6263	975.6262
DGDG(14:0/16:0)	C ₄₇ H ₈₇ O ₁₇	923.5964	923.5949
DGDG(16:0/17:0)	C ₅₀ H ₉₃ O ₁₇	965.6440	965.6418
DGDG(18:1/18:1)	C ₅₃ H ₉₅ O ₁₇	1003.6593	1003.6575
DGDG(18:0/18:1)	C ₅₃ H ₉₇ O ₁₇	1005.6746	1005.6731
DGDG(16:1/19:1)	C ₅₂ H ₉₃ O ₁₇	989.6419	989.6418
DGDG(17:1/18:1)	C ₅₂ H ₉₃ O ₁₇	989.6436	989.6418
DGDG(16:1/16:1)	C ₄₉ H ₈₇ O ₁₇	947.5948	947.5949
DGDG(14:0/16:1)	C ₄₇ H ₈₅ O ₁₇	921.5808	921.5792
DGDG(14:1/16:0)	C ₄₇ H ₈₅ O ₁₇	921.5807	921.5792
DGDG(16:0/18:2)	C ₅₁ H ₉₁ O ₁₇	975.6266	975.6262
DGDG(16:1/17:1)	C ₅₀ H ₈₉ O ₁₇	961.6113	961.6105
DGDG(12:0/16:0)	C ₄₅ H ₈₃ O ₁₇	895.5645	895.5636
[M-H] ⁻			
SQDG(16:0/16:0)	C ₄₁ H ₇₇ O ₁₂ S ₁	793.5141	793.5141
SQDG(16:1/16:1)	C ₄₁ H ₇₃ O ₁₂ S ₁	789.4842	789.4828

[illegible]