Additional file 3 - Strains of *Saccharomyces cerevisiae* carrying AMTP genes from *Cladonia grayi*. All strains are congenic to Σ1278b* except S288C. All lichen genes are expressed from the p416-GPD plasmid unless otherwise noted.

Strains (mating type)	**Genotype**	**References and comments**
MLY131 (a)	Δ*mep1::LEU2,* Δ*mep2*::*LEU2,* Δ*mep3::G418*, *ura3-52*, *MAT* a	Lorenz and Heitman, 1998
MLY131 (α)	Δ*mep1::LEU2*, Δ*mep2*::*LEU2*, Δ*mep3::G418*, *ura3-52*, *MAT α*	Lorenz and Heitman, 1998
FD131 (a/α)	Δ*mep1::LEU2*/Δ*mep1::LEU2*, Δ*mep2*::*LEU2*/Δ*mep2*::*LEU2*, Δ*mep3::G418*/Δ*mep3::G418*, *ura3-52/ ura3-52*, *MAT*a	MLY131(a) x MLY131(α)
TRM Mep1a (a)	Δ*mep1::LEU2*/Δ*mep1::LEU2*, Δ*mep2*::*LEU2*/Δ*mep2*::*LEU2*, Δ*mep3::G418*/Δ*mep3::G418*, *ura3-52/ ura3-52*, *MAT*a *, ura4-CgMep1a*	Transformant of MLY131(a)
TRM Mep1a (a/α)	Δ*mep1::LEU2*/Δ*mep1::LEU2*, Δ*mep2*::*LEU2*/Δ*mep2*::*LEU2*, Δ*mep3::G418*/Δ*mep3::G418*, *ura3-52/ ura3-52*, *MAT*a*/α, URA4-CgMep1a-CYC*	Transformant of FD131(a/α)
TRM Mep1b (a)	Δ*mep1::LEU2*/Δ*mep1::LEU2*, Δ*mep2*::*LEU2*/Δ*mep2*::*LEU2*, Δ*mep3::G418*/Δ*mep3::G418*, *ura3-52/ ura3-52*, *MAT*a *MATa, ura4::CgMep1b*	Transformant of MLY131(a) (Expressed from pRS306-GAL1-TADH)
TRM Mep1b (a/α)	Δ*mep1::LEU2*/Δ*mep1::LEU2*, Δ*mep2*::*LEU2*/Δ*mep2*::*LEU2*, Δ*mep3::G418*/Δ*mep3::G418*, *ura3-52/ ura3-52*, *MAT*a *MATa/α, ura4::CgMep1b*	TRMB x MLY 131(α)
TRM MepC (a)	Δ*mep1::LEU2*/Δ*mep1::LEU2*, Δ*mep2*::*LEU2*/Δ*mep2*::*LEU2*, Δ*mep3::G418*/Δ*mep3::G418*, *ura3-52/ ura3-52*, *MAT*a*, ura4::CgMepC*	Transformant of MLY131
TRM MepC (a/α)	Δ*mep1::LEU2*/Δ*mep1::LEU2*, Δ*mep2*::*LEU2*/Δ*mep2*::*LEU2*, Δ*mep3::G418*/Δ*mep3::G418*, *ura3-52/ ura3-52*, *MATa/α, ura4::CgMepC*	Transformant of FD131(a/α)

Additional file 4 (continued) - Strains of *Saccharomyces cerevisiae* carrying ATMP genes from *Cladonia grayi*.

TRM MepD (a)	Δ*mep1::LEU2/*Δ*mep1::LEU2*, Δ*mep2*::*LEU2/*Δ*mep2*::*LEU2*, Δ*mep3::G418/*Δ*mep3::G418*, *ura3-52/ ura3-52*, *MAT*a *ura4::CgMepD*	Transformant of MLY131(a)
TRM MepD (a/α)	Δ*mep1::LEU2/*Δ*mep1::LEU2*, Δ*mep2*::*LEU2/*Δ*mep2*::*LEU2*, Δ*mep3::G418/*Δ*mep3::G418*, *ura3-52/ ura3-52*, *MAT*a *MATa/α, ura4::CgMepD*	Transformant of FD131(a/α)
TRM ScMep2 (a)	Δ*mep1::LEU2/*Δ*mep1::LEU2*, Δ*mep2*::*LEU2/*Δ*mep2*::*LEU2*, Δ*mep3::G418/*Δ*mep3::G418*, *ura3-52/ ura3-52*, *MAT*a *MATa, ura4::ScMep2*	Transformant of MLY131(a)
TRM ScMep2 (a/α)	Δ*mep1::LEU2/*Δ*mep1::LEU2*, Δ*mep2*::*LEU2/*Δ*mep2*::*LEU2*, Δ*mep3::G418/*Δ*mep3::G418*, *ura3-52/ ura3-52*, *MAT*a *MATa/α, ura4::ScMep2*	Transformant of FD131(a/*α)*
S288C	Wild type	

*Σ1278b is described in Grenson M, Mousset M, Wiame JM, Bechet J: **Multiplicity of the amino acid permeases in *Saccharomyces cerevisiae*. I. Evidence for a specific arginine-transporting system.** *Biochim Biophys Acta* 1966, **127**(2):325–338.