

## **Diatoms and plants acyl-CoA:lysophosphatidylcholine acyltransferases (LPCATs) exhibit diverse substrate specificity and biochemical properties**

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### **Supplementary materials**

**Table S1.** LPCAT activity of proteins encoded by six different genes cloned from *P. tricornutum* with sequence similar to genes encoding acyl:CoA:lysophosphatidylcholine acyltransferases (LPCATs) in other organisms.

Tested gene	pmol [ <sup>14</sup> C]PC/nmol microsomal PC/min
Phatr3_J54709	0.05 ±0
Phatr3_J11916	0.06±0.02
Phatr3_J40461	0.14±0.02
Phatr3_J43099	0
Phatr3_J20460	140.4±9.3
Phatr3_J48640	0

Cloned genes were heterologously expressed in yeast lacking functional gene encoding ALE1 (acyl:CoA:lysophosphatidylcholine acyltransferase of yeast). In assays we used microsomal fractions from these yeast as an enzyme source and LPC as acyl acceptor in combination with [<sup>14</sup>C]18:1-CoA as acyl donor. Values shown are differences of activities between microsomal fractions of yeast *Δale1* expressing *P. tricornutum* cloned genes and activities of control yeast (*Δale1*) harboring an empty vector. Mean values and SD are presented (data from at least two independent assays).