Supplementary Material

Phosphatidylethanolamine and Cardiolipin Differentially Affect the Stability of Mitochondrial Respiratory Chain Supercomplexes

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Supplementary Figure Legends

Supplementary Fig. S1. Growth and phospholipid distribution of wild-type, $psd1\Delta$ and $psd1\Delta psd2\Delta$ yeast cells. (a) Growth of wild-type, $psd1\Delta$ and $psd1\Delta psd2\Delta$ yeast cells (serial dilutions) was analyzed on the indicated growth media and temperatures. YPD: 1% (w/v) yeast extract, 2% (w/v) Bacto Peptone and 2% (w/v) glucose; YPG: 1% (w/v) yeast extract, 2% (w/v) Bacto Peptone and 3% (v/v) glycerol; YPLac: 1% (w/v) yeast extract, 2% (w/v) Bacto Peptone, 2.2% (v/v) lactic acid, 0.05% (w/v) glucose, 0.05% (w/v) CaCl₂, 0.1% (w/v) KH₂PO₄, 0.1% (w/v) NH₄Cl, 0.05% (w/v) NaCl, 0.8% (w/v) NaOH, pH 5.0. (b) The phospholipid composition of wild-type, $psd1\Delta$, $psd1\Delta$ $psd2\Delta$ and $crd1\Delta$ cell extracts was determined as described. ^{69,71,72} Mean values with standard error of the mean are shown (n = 4). DMPE, dimethylphosphatidylethanolamine; LP, lysophospholipids; PA, phosphatidic acid; PC. phosphatidylcholine; PG. phosphatidylglycerol; PI, phosphatidylinositol; PS, phosphatidylserine. (c) Inner membrane vesicles from wild-type, $psd1\Delta$, $psd1\Delta$ and $crd1\Delta$ mitochondria were isolated by sucrose gradient centrifugation.⁷⁰ Phospholipids were extracted and the total phospholipid content was determined as described⁷³. Shown are the mean values of two determinations with range.

Supplementary Fig. S2. Steady-state levels of proteins in wild-type, $psd1\Delta$ and $psd1\Delta$ yeast mitochondria. The indicated amounts (total protein) of wild-type,

 $psd1\Delta$ and $psd1\Delta$ $psd2\Delta$ mitochondria were subjected to SDS-PAGE. Proteins were detected by Western blotting using the indicated antibodies.







