



Supplementary Figure S1. A pixel densitometry graph of electroforegram shown in Figure 3 obtained by Image Engineering - ImageJ tool (<https://imagej.nih.gov/nih-image/more-docs/Engineering/ImgEngr.html>, accessed on 22 December 2021).

Supplementary Table S1. The construction of expression vectors and the genetic map of plasmids pMB1 were published earlier [33].

Strain name	Strain genotype
CRN	<i>MATa ade2 his3 ura3 ppn1Δ::CgTRP1</i>
CRN/ <i>PPN1</i>	<i>MATa ade2 his3 ura3 ppn1Δ::CgTRP1/pMB1_PPN1 Sc</i>
CRN/ <i>PPN2</i>	<i>MATa ade2 his3 ura3 ppn1Δ::CgTRP1/ pMB1_PPN2 Sc</i>
CRN/ <i>PPX1</i>	<i>MATa ade2 his3 ura3 ppn1Δ::CgTRP1 /pMB1_PPX1 Sc</i>
CRN/ <i>DDP1</i>	<i>MATa ade2 his3 ura3 ppn1Δ::CgTRP1 /pMB1_DDP1 Sc</i>

Supplementary Table S2. Statistical significance estimates for data shown in Figure 4. Two-tailed Student's t-test was computed in MS Excel software comparing the data from each polyphosphatase-overexpressing strain against CRN.

Cd²⁺, mM	CRN/PPN1	CRN/PPN2	CRN/PPX1	CRN/DDP1
0.00	0.9918	0.3072	0.4985	0.3441
0.01	0.0031	0.1895	0.0000	0.5620
0.02	0.0011	0.0378	0.0089	0.0021
0.03	0.1019	0.0016	0.0044	0.0067
0.04	0.7733	0.0075	0.0003	0.0002
0.05	0.0248	0.0025	0.0005	0.0000
0.1		0.0110		0.0051

KOH, mM	CRN/PPN1	CRN/PPN2	CRN/PPX1	CRN/DDP1
0	0.0324	0.5569	0.0010	0.0011
10	0.4319	0.4618	0.0013	0.0011
20	0.1385	0.2060	0.0554	0.0131
25	0.0024	0.0034	0.0032	0.0005
30	0.0003	0.0001	0.0042	0.0004
40	0.0211	0.0000	0.0009	0.0001
50	0.0126	0.0009	0.0100	0.0126

Mn²⁺, mM	CRN/PPN1	CRN/PPN2	CRN/DDP1	CRN/PPX1
0	0.8756	0.0612	0.0018	0.1786
0.5	0.5827	0.1267	0.7183	0.2817
1	0.0211	0.5798	0.0178	0.8340
2	0.0068	0.8122	0.0001	0.1034
4	0.0072	0.6866	0.0001	0.0015
6	0.0006	0.1514	0.0019	0.1183

H₂O₂, mM	CRN/PPN1	CRN/PPN2	CRN/PPX1	CRN/DDP1
0	0.1103	0.0537	0.8629	0.0173
1	0.0010	0.1694	0.0016	0.0002
1.5	0.0112	0.0207	0.0014	0.0002
2	0.0000	0.0000	0.0523	0.0050
2.5	0.0000	0.0000	0.3829	0.0006
3	0.0000	0.0013	0.0007	0.0233