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Absence of the peroxiredoxin Pmp20 causes peroxisomal protein leakage and necrotic cell death

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Table S1. *Hansenula polymorpha* strains and plasmids used in this study.

Strain	Relevant properties	Reference
WT, <i>leu 1.1 ura3</i>	Wild type NCYC495, <i>leu 1.1 ura 3</i>	[47]
WT, <i>leu 1.1</i>	Wild type NCYC495, <i>leu 1.1 URA3</i>	[47]
WT::P _{AMO} GFP-SKL	Wild type containing a single copy integration of the <i>GFP-SKL</i> gene, behind the P _{AMO} promoter	[20]
<i>pmp20</i>	<i>PMP20</i> disruption strain, <i>leu1.1</i>	This study
<i>pmp20::P_{AMO}GFP-SKL</i>	<i>pmp20</i> containing a single copy integration of the <i>GFP-SKL</i> gene, behind the P _{AMO} promoter	This study
<i>ycal</i>	<i>YCA1</i> disruption strain, <i>leu1.1</i>	This study
<i>pmp20ycal</i>	<i>PMP20</i> and <i>YCA1</i> double deletion strain, <i>leu1.1</i>	This study
Plasmid	Relevant properties	Reference
pHIPX5-GFP-SKL	pHIPX5 containing a gene encoding GFP containing the PTS1 tripeptide –SKL at the extreme C-terminus	[20]
pEBA025	pHIPX5 containing a gene encoding 6 histidine residues N terminally fused to Pmp20	This study
pENTR 221_ura3	Entry plasmid containing the URA gene	This study
pEBA017	Entry plasmid containing 5'-flanking <i>PMP20</i>	This study
pEBA018	Entry plasmid containing 3'-flanking <i>PMP20</i>	This study
pEBA019	Expression plasmid containing the <i>PMP20</i> disruption cassette and uracil gene as marker	This study
pEBA031	PBluescript variant containing the disruption cassette for <i>YCA1</i> and zeocin as marker	This study
pFEM39	pBluescript II KS ⁺ containing the zeocine selection cassette	[48]

Table S2. Oligonucleotides used in this study.

Primer name	Sequence (5'-3')
5'-rev-pmp20	GGGACTGCTTTTTTGTACAAACTTGG <u>TAAG</u> TTGTTAAGAGAGGCGAC*
5'-fwd-pmp20	GGGACAACCTTTGTATAGAAAAGTTGTGCCCTAAATACCGGTTAC
3'-fwd-pmp20	GGGACAACCTTTGTATAGAAAAGTTGTGCCCTAAATACCGGTTAC
3'-rev-pmp	GGGACAACCTTTGTATAATAAAGTTGCCCTGGAGCGACATGATGCAC
Entr221 -URA F	GGGACAAGTTTGTACAAAAAAGCAGGCTGAGCTTCAACTGATGTTTCAGC
Entr221- URA R	GGGACCACTTTGTACAAGAAAGCTGGGTCTGAAGCACATCAACTGGATCG
cut-fwd-pmp20	ACAGCTTTGCTAGAAGTTTGGACGCC
cut-rev-pmp20	GGAGCGACATGATGCACACAAAAGG
his-pmp20 -fwd	CCAAGGATCCATGCACCACCACCACATCACGTTGTTAAGAGAGGCGACA AATTCC
his-pmp20 -rev	GGTTACAGCTTTGCTAGAAGTTTGGAC
Fw-5'-YCA1	CAATCATCCGCGG <u>TAAT</u> ATCCAGGAAACTCGCACGCCAATTACG*
Rev-5'-YCA1	GGCAGCGCTCTAGAATATCCGTCTTCCTCATCTCCATCCTGGTC
Fw-3'-YCA1	GACTGTCTCGAGCCATTGCCAGCAGGTTGCAGACTCACGTGTATT
Rev-3'-YCA1	CCACTGGTACCGCAACAGCGTGAGATAACTCTGTATAGGGTTCTCC
pcr-yca1-fw	TACCCAGGAAACTCGCACGCCAATTACGG
pcr-yca1-rev	GCAACAGCGTGAGATAACTCTGTATAGGGTTCTCC

* Underlined sequence indicates introduced stop codon.