

SUPPLEMENTARY INFORMATION

Supplemental Table 1: List of primers used in this study

Primer Name	Sequence
DhPPZ1 cloning	
DhPPZ1_ORF F	5'-CTAGCTAGCATGGGGAACAATTCATCTAAG-3'
DhPPZ1_ORF R	5'-CCGCTCGAGTTACAGCTGTTGCAACTGAG-3'
DhPPZ1_Full F	5'-CGGGATCCTTTATCCTACACGTCCTAAC-3'
DhPPZ1_Full R	5'-CCGCTCGAGTAACAGATTCTAATAAGGGC-3'
DhPPZ1_ORF new RFP F	5'-TATACCATGGATGGGGAACAATTCATCTAA-3'
DhPPZ1_ORF RFP R	5'-CCGCTCGAGCAGCTGTTGCAACTGAGC-3'
DhPPZ1 mutants	
DhPPZ1_seq1	5'-AGAAATGATTAACACTTGGAC-3'
DPPZ1_flanking F	5'-TTTCTACGAACGCTCACG-3'
DhPPZ1_DEL1 F	5'-CTCGGCAAAGATGCTGAGGGATGATAATTCA-3'
DhPPZ1_DEL1 R	5'-CCCTCAGCATCTTTGCCGAGTTTCCCG-3'
DhPPZ1_DEL2 F	5'-TTCACGCAAGATACCGATTAACGGGAATAAC-3'
DhPPZ1_DEL2 R	5'-TAATCGGTATCTTGCGTGAAGTAGCCTTC-3'
DhPPZ1_DEL3 F	5'-GATTAACGGGAAAAATCCATCAAATCAGCAT-3'
DhPPZ1_DEL3 R	5'-ATGGATTTTTCCCGTTAATCGGTATGTTC-3'
DhPPZ1_DEL4F	5'-CTTACATAAATCAATGATACAAGTGGAACCTAA-3'
DhPPZ1_DEL4R	5'-GTATCATTGATTTATGTAAGCTTAGGTTGAAA-3'
DhPPZ1_DEL5F	5'-TCATTTGGCACATTCACATCATTCTGGAAGTAT-3'
DhPPZ1_DEL5R	5'-GATGTGAATGTGCCAAATGAGGTGAATTC-3'
DhPPZ1_DEL6 F	5'-CCTACTGCATATTGATATTGAAAACCTTGATTCAG-3'
DhPPZ1_DEL6 R	5'-CAATATCAATATGCAGTAGGTTATTAATCAGTACAT-3'
DhPPZ1_F NEW	5'-AAGGATCCTTTATCCTACACGTCCTAACATTA-3'
DhPPZ1_R NEW	5'-AATAGAGCTCTAACAGATTCTAATAAGGGCTCG-3'
DhPPZ1_int R1	5'-TATACCATGGTCTCCTAGTTTTAAACTACCAACG-3'
DhPPZ1_int F1	5'-AATACCATGGGGAACAATTCATCTAAG-3'
DhPPZ1_int R2	5'-CATATGTACATCGCCAACCACTTTAACAG-3'
DhPPZ1_NterR	5'-TATCTCGAGTTAGTGATGATGATGATGATGATGAGAGCCGC TATCGTCG-3'
DhPPZ1_Cter F	5'-TTAACCATGGATGATTGATATTGAAAACCTTGATTCA-3'
DhPPZ1_303R	5'-TATAAGCTTAGGTTGAAAACGAA-3'
4SA for	5'-GCTTCAAGAGCCATTAGAGCAAGGATAGCTATGCTGA GGGATGATAATTCA-3'
4SA rev	5'-AGCTATCCTTGCTCTAATGGCTCTTGAAGCCTTTGCCGA GTTTCCCG-3'
3RE for	5'-TCTTCAGAATCCATTGAATCAGAGATATCTATGCTGAGG GATGATAATTCA-3'
3RE rev	5'-AGATATCTCTGATTCAATGGATTCTGAAGACTTTGCCG AGTTTCCCG-3'
3RA for	5'-TCTTCAGCATCCATTGCATCAGCGATATCTATGCTGAGG GATGATAATTCA-3'
3RA rev	5'-AGATATCGCTGATGCAATGGATGCTGAAGACTTTGCC GAGTTTCCCG-3'
SRAA for	5'-GCTTCAGCAGCCATTGCAGCAGCGATAGCTATGCTGAGG

GATGATAATTCA-3'

SRAA rev 5'-AGCTATCGCTGCTGCAATGGCTGCTGAAGCCTTTGCC
GAGTTTCCCG-3'

SRAE for 5'-GCTTCAGAAGCCATTGAAGCAGAGATAGCTATGCTGAGG
GATGATAATTCA-3'

SRAE rev 5'-AGCTATCTCTGCTTCAATGGCTTCTGAAGCCTTTGCCGA
GTTTCCCG-3'

S27A for 5'-AACTCGGCAAAGgCTTCAAGATCCATTAGATCAAGG-3'

S27A rev 5'-TGGATCTTGAAGcCTTTGCCGAGTTTCCCG-3'

S30A for 5'-AAGTCTTCAAGAgCCATTAGATCAAGGATATCTATGCT-3'

S30A rev 5'-TTGATCTAATGGcTCTTGAAGACTTTGCCGAGTT-3'

S33A for 5'-AGATCCATTAGAgCAAGGATATCTATGCTGAGGGA-3'

S33A rev 5'-TAGATATCCTTgCCTAATGGATCTTGAAGACTTTGC-3'

S36A for 5'-AGATCAAGGATAgCTATGCTGAGGGATGATAATTCA-3'

S36A rev 5'-CCCTCAGCATAgcTATCCTTGATCTAATGGATCTTGAA-3'

R29A for 5'-GCAAAGTCTTCAgcATCCATTAGATCAAGGATATCTATGC-3'

R29A rev 5'-GATCTAATGGATgcTGAAGACTTTGCCGAGTTTC-3'

R32A for 5'-TCAAGATCCATTgcATCAAGGATATCTATGCTGAGGG-3'

R32A rev 5'-GATATCCTTGATgcAATGGATCTTGAAGACTTTGCC-3'

R34A for 5'-TCCATTAGATCAgcGATATCTATGCTGAGGGATGATAAT-3'

R34A rev 5'-AGCATAGATATCgcTGATCTAATGGATCTTGAAGACTT-3'

DhMPK1 cloning

DHMPK11_full f 5'-CGGGATCCAATATGTAGTCAAAGAGTGCG-3'

DHMPK11_full R 5'-CCGCTCGAGGCTAGTAATTGATTTGTCGC-3'

DhMPK1_flankingF 5'-CGTATTGAAGCAATGGCTAG-3'

PPZ1 cloning

Scppz1 Full F 5'-AAATGCATGCGTCCTCCAATTCAACAAACTA-3'

Scppz1 orf R 5'-AAGGTACCTTACTGTTGAGATTTCGTTATCA-3'

Scppz1 del F 5'-AAATCAAATAAATCGTCCACTACGAATACTAATTC-3'

Scppz1del R 5'-TCGTAGTGGACGATTTATTTGATTTTGCAGACTTC-3'

RT-PCR Primers

DHTRK1_RTF 5'-TCAGAGGGAGGCACAGAGGTTTG-3'

DHTRK1_RTR 5'-GCATTCCCATCATCCAAGCTATTTG-3'

DHENA1_RTF 5'-TTTCCCAGTCGTCTACATTCCTGTAATC-3'

DHENA1_RTR 5'-TGGATCATTCTTCTCTAAGTCGTAATCTGG-3'

DHNHA1_RTF 5'-GTGGATCTGAAGAGACTGATGAGGATG-3'

DHNHA1_RTR 5'-TCATCTTCTTTCCGCTATGAGTTGGC-3'

Dh_GPD F 5'-TTGTCTCCACCGATTTCTTAG-3'

Dh_GPD R 5'-CAAGTCGACAACCTCTGGTAGAG-3'

Two hybrid cloning

DhHAL3 ORFf 5'-GGAATTCCATATGGTTTCAGAAAATGGTG-3'

DhHAL3 ORFr 5'-CCGCTCGAGTTAAGTGTTATTAGATTCTTCCTC-3'

DhPPZ1 2HF 5'-ATCGGATCCATATGGGGAACAATTCATCTAAG-3'

DhPPZ1_ORF R 5'-CCGCTCGAGTTACAGCTGTTGCAACTGAG-3'

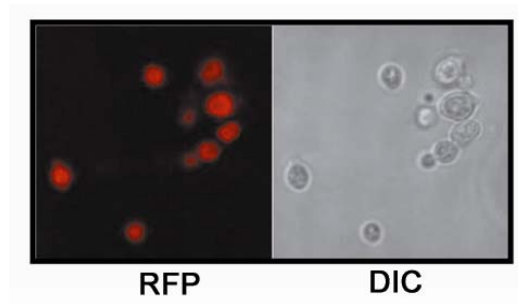


Figure S2. Localization of the DhPpz1p-RFP fusion protein. *D. hansenii* strain DBH93 harboring plasmid pAN4 (DhPPZ1-RFP) at logarithmic phase was observed under fluorescence microscope. RFP fluorescence is shown in red. Right panel shows the DIC image of the same cells.

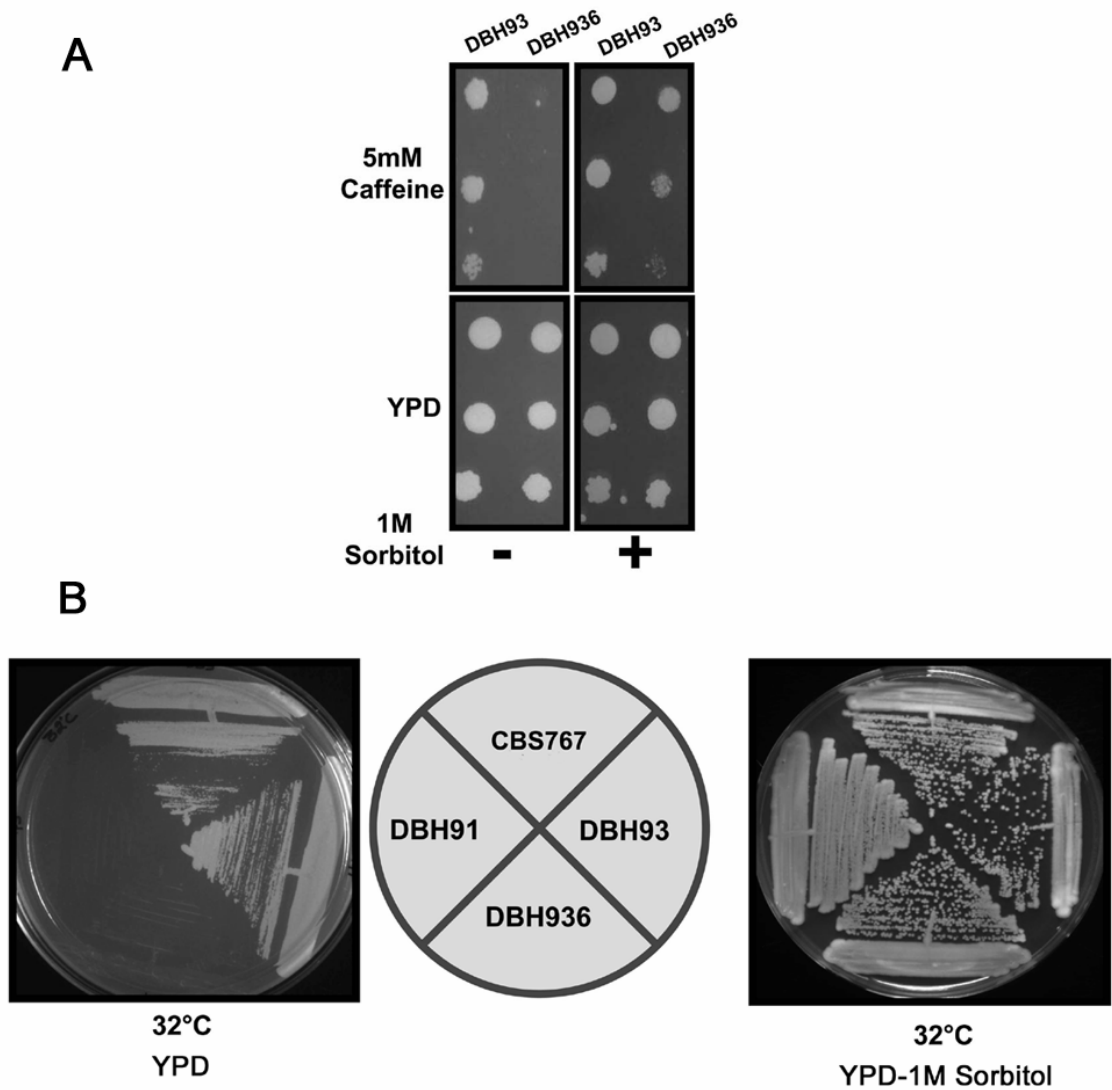


Figure S3. A. Sensitivity of *dhppz1* mutant towards cell wall destabilizing agent. Serial dilution of DBH936 (*dhppz1*) and DBH93 (parent) strains on YPD or YPD plus 1M sorbitol with 5mM caffeine incubated four days at 28°C **B.** Temperature-dependent cell lysis defect of *dhppz1* mutants. Growth of *dhppz1* mutants (DBH91 and DBH936) on YPD and YPD plate supplemented with 1M sorbitol at 32°C. CBS767 and DBH93 strains were used as control.



Figure S4. Temperature-dependent cell lysis defect of *dhmpk1* mutants. Growth of *dhmpk1* mutants (two independent transformants - DBH932 and DBH933) on YPD and YPD plate supplemented with 1M sorbitol at 32°C. CBS767 and DBH93 strains were used as control.

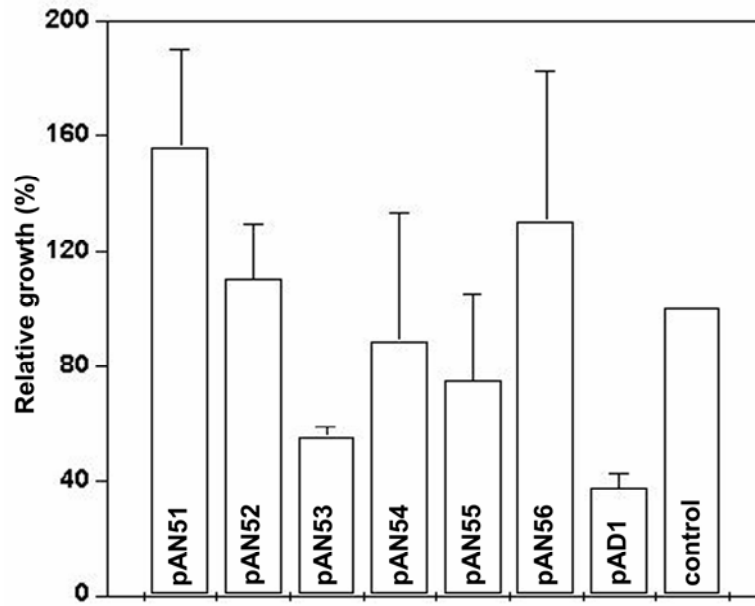


Figure S5. Effect of different N-terminal deletions on slow growth phenotype of *dhppz1* mutant. Saturated cultures of *dhppz1* mutant (DBH936) carrying different mutant plasmids pAN51, pAN52, pAN53, pAN54, pAN55, pAN56 or vector pDA1 were used to re-inoculate 25 ml YNB medium at initial OD₆₀₀ of 0.025. After 24 hr of growth at 28C, OD₆₀₀ of each culture was measured and expressed as relative growth as percentage of control strain (100%). DBH93 harboring plasmids pDA1 and pDH4 was used as control. Data presented as mean ± sd of three independent experiments.