

Chemical genomic profiling unveils the *in vitro* and *in vivo* antiplasmodial mechanism of açai (*Euterpe oleracea* Mart.) polyphenols

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Table S1 – Sensitive mutant yeast strains depleted under total phenolics (1) treatment.

| ORF | Gene | Protein ID | log2FoldChange | TP pvalue | Process |
|-----------|---------|------------|----------------|-----------|--|
| YBL069W | AST1 | P35183 | -3,00989 | 0,009216 | protein transport |
| YAR023C | unknown | D6VPM8 | -2,25249 | 0,0006 | unknown |
| YLL003W | SFI1 | Q12369 | -2,06444 | 0,006149 | cell cycle progression |
| YAL017W | PSK1 | P31374 | -2,04111 | 0,005236 | protein phosphorylation |
| YHL015W | RPS20 | P38701 | -1,84055 | 0,008569 | RNA modification and translation |
| YML010W-A | unknown | Q6B0Y1 | -1,83123 | 0,001358 | unknown |
| YMR018W | PEX9 | Q04364 | -1,81627 | 0,000698 | protein import for peroxisome |
| YCR017C | CWH43 | P25618 | -1,73376 | 0,000595 | cell wall assembly/GPI biosynthesis |
| YCL058C | FYV5 | P25585 | -1,57698 | 0,002022 | signaling |
| YMR204C | INP1 | Q03694 | -1,57039 | 0,003732 | peroxisome inheritance |
| YMR230W | RPS10B | P46784 | -1,53678 | 0,001565 | RNA export and translation |
| YGL157W | ARI1 | P53111 | -1,50278 | 7,94E-05 | oxireduction |
| YHL023C | NPR3 | P38742 | -1,4926 | 0,00037 | signaling |
| YFL049W | SWP82 | P43554 | -1,46713 | 0,009164 | transcription regulation |
| YMR271C | URA10 | P30402 | -1,46672 | 0,002199 | ribonucleotides biosynthesis |
| YER044C | ERG28 | P40030 | -1,46511 | 0,001549 | lipid metabolism |
| YER071C | TDA2 | P40045 | -1,38 | 0,001858 | cytoskeleton organization |
| YER036C* | ARB1 | P40024 | -1,36015 | 0,009498 | ribosome biogenesis and transport |
| YLR428C | unknown | O13564 | -1,35653 | 0,000926 | unknown |
| YMR207C | HFA1 | P32874 | -1,3407 | 0,002794 | lipid metabolism |
| YCR053W | THR4 | P16120 | -1,31124 | 0,003309 | AA biosynthesis |
| YNR013C | PHO91 | P27514 | -1,3081 | 0,004094 | ion transport |
| YBL035C | POL12 | P38121 | -1,30419 | 0,004748 | DNA replication |
| YOL150C | unknown | Q08293 | -1,30041 | 0,001477 | unknown |
| YPR119W | CLB2 | P24869 | -1,30011 | 0,002362 | protein phosphorylation/cell cycle |
| YIL053W | GPP1 | P41277 | -1,23148 | 0,005322 | response to osmotic stress |
| YCR024C-A | PMP1 | P32903 | -1,21954 | 0,004522 | ion transport |
| YKR050W | TRK2 | P28584 | -1,20432 | 0,000486 | ion transport |
| YFL031W | HAC1 | P41546 | -1,19712 | 0,001506 | unfolded protein response/transcription regulation |
| YPR167C | MET16 | P18408 | -1,13406 | 0,005196 | oxireduction |
| YKR018C | unknown | P36114 | -1,13193 | 0,007639 | unknown |
| YOR132W | VPS17 | P32913 | -1,09145 | 0,006946 | vesicle transport |
| YER097W | unknown | P40062 | -1,03611 | 0,008503 | unknown |
| YPR075C | OPY2 | Q06810 | -1,03551 | 0,001841 | signaling |
| YPL006W | NCR1 | Q12200 | -1,03369 | 0,004371 | lipid metabolism |
| YCR032W | BPH1 | P25356 | -1,02783 | 0,004942 | cell wall organization |
| YCL035C | GRX1 | P25373 | -1,02432 | 0,006681 | response to oxidative stress |
| YGL252C | RTG2 | P32608 | -1,01761 | 0,003385 | transcription regulation |
| YCR052W | RSC6 | P25632 | -0,99924 | 0,00826 | transcription regulation |
| YHR016C | YSC84 | P32793 | -0,99431 | 0,006581 | cytoskeleton organization |
| YFL004W | VTC2 | P43585 | -0,98317 | 0,001928 | vacuolar transport |

| | | | | | |
|---------|---------|--------|----------|----------|----------------------|
| YBR103W | SIF2 | P38262 | -0,97773 | 0,009337 | signaling |
| YNL022C | RCM1 | P53972 | -0,97595 | 0,007339 | RNA modification |
| YOL141W | PPM2 | Q08282 | -0,96816 | 0,007268 | RNA modification |
| YJL171C | unknown | P46992 | -0,96689 | 0,007395 | unknown |
| YER092W | IES5 | P40060 | -0,96485 | 0,004248 | telomere maintenance |
| YKR041W | unknown | P36134 | -0,92104 | 0,002953 | unknown |
| YFR014C | CMK1 | P27466 | -0,87737 | 0,005333 | signaling |
| YPR189W | SKI3 | P17883 | -0,85451 | 0,009877 | RNA degradation |
| YIL023C | YKE4 | P40544 | -0,85284 | 0,00611 | ion transport |
| YLL009C | COX17 | Q12287 | 1,29817 | 0,000727 | aerobic respiration |

ORFs marked with * represent essential genes

Table S2 – Sensitive mutant yeast strains depleted under non-anthocyanin phenolics (2) treatment.

| ORF | Gene | Protein ID | log2FoldChange | NAP | | Gene ontology |
|-----------|---------|------------|----------------|----------|--|--|
| | | | | pvalue | | |
| YMR044W | IOC4 | Q04213 | -2,50373 | 1,75E-05 | | chromatin organization |
| YCR059C | YIH1 | P25637 | -1,29308 | 1,86E-05 | | protein phosphorylation |
| YAL053W | FLC2 | P39719 | -1,55199 | 6,25E-05 | | lipid metabolism |
| YCR065W | HCM1 | P25364 | -1,00563 | 0,0001 | | transcription regulation |
| YCR051W | unknown | P25631 | -1,05881 | 0,000125 | | unknown |
| YCR049C | unknown | P25629 | -1,22856 | 0,000137 | | unknown |
| YLR025W | SNF7 | P39929 | 1,158644 | 0,00015 | | protein degradation |
| YAR028W | unknown | P39548 | -1,78479 | 0,000208 | | unknown |
| YOR374W | ALD4 | P46367 | -1,09686 | 0,000238 | | monocarboxylic acid metabolism |
| YMR207C | HFA1 | P32874 | -1,42527 | 0,000277 | | lipid metabolism |
| YFR014C | CMK1 | P27466 | -1,07409 | 0,000278 | | signaling |
| YCR082W | AHC2 | P25649 | -1,37753 | 0,000306 | | histone acetylation |
| YCR002C | CDC10 | P25342 | -1,69566 | 0,000362 | | cell cycle |
| YDR068W | unknown | P54858 | 1,287375 | 0,000399 | | unknown |
| YFL027C | GYP8 | P43570 | -1,31164 | 0,000581 | | vesicle transport |
| YMR218C* | TRS130 | Q03660 | -1,50952 | 0,000601 | | endosomal transport |
| YMR084W | unknown | A2P2R3 | -1,0953 | 0,000853 | | unknown |
| YBR219C | unknown | P38317 | -1,25534 | 0,001255 | | unknown |
| YHR009C | TDA3 | P38758 | -1,38673 | 0,00133 | | endosomal transport |
| YNL140C | unknown | P53910 | -1,16283 | 0,001589 | | unknown |
| YER007C-A | VID28 | P89886 | -1,43867 | 0,001647 | | ribosome biogenesis |
| YEL026W | SNU13 | P39990 | -1,1394 | 0,001671 | | RNA modification |
| YFL031W | HAC1 | P41546 | -1,03349 | 0,001869 | | unfolded protein response/transcription regulation |
| YKL157W | APE2 | P32454 | -0,82714 | 0,001935 | | peptide catabolism |
| YMR144W | FDO1 | P40214 | -1,61338 | 0,00198 | | yeast mating |
| YJL007C | unknown | P47080 | -1,00179 | 0,002297 | | unknown |
| YIL154C | IMP2' | P32351 | -0,83364 | 0,002327 | | transcription regulation |
| YBR057C | MUM2 | P38236 | -1,03262 | 0,0024 | | cell cycle/DNA replication |
| YAR003W | SWD1 | P39706 | -1,52401 | 0,002615 | | chromatin organization |
| YJR064W* | CCT5 | P40413 | -1,27372 | 0,0028 | | protein folding |
| YIL142W* | CCT2 | P39076 | -2,02489 | 0,002921 | | protein folding |
| YDR219C | MFB1 | Q04922 | -0,96579 | 0,003298 | | protein degradation |
| YKL164C | PIR1 | Q03178 | -1,00759 | 0,003518 | | cell wall organization/protein transport |
| YIL009C-A | EST3 | Q03096 | -1,3971 | 0,003632 | | telomere maintenance |
| YKR050W | TRK2 | P28584 | -0,81496 | 0,003718 | | ion transport |
| YIR018W | YAP5 | P40574 | -0,90611 | 0,004499 | | transcription regulation |
| YER121W | unknown | P40076 | -0,99279 | 0,004655 | | unknown |
| YKR018C | unknown | P36114 | -1,18662 | 0,004849 | | unknown |
| YDR390C* | UBA2 | P52488 | -1,19621 | 0,004944 | | protein sumoylation |
| YIL141W | unknown | P40461 | -1,01421 | 0,005015 | | unknown |
| YJL172W | CPS1 | P27614 | -0,83284 | 0,005113 | | protein degradation |
| YMR026C | PEX12 | Q04370 | -1,88709 | 0,005124 | | protein import to peroxisome |

| | | | | | |
|----------|---------|--------|----------|----------|---|
| YGL218W | unknown | P53084 | -0,79706 | 0,005292 | unknown |
| YBR137W | unknown | P38276 | -0,81766 | 0,005298 | unknown |
| YNR057C | BIO4 | P53630 | -1,95844 | 0,005492 | biotin biosynthesis |
| YIL017C | VID28 | P40547 | -0,91135 | 0,005495 | transcription regulation/protein degradation |
| YJR116W | unknown | P47153 | -1,37086 | 0,005773 | unknown |
| YFR030W | MET10 | P39692 | -0,71096 | 0,006122 | sulfate assimilation |
| YJL140W | RPB4 | P20433 | -1,14835 | 0,006258 | transcription regulation |
| YCL035C | GRX1 | P25373 | -0,97205 | 0,006305 | response to oxidative stress |
| YAL019W | FUN30 | P31380 | -1,21014 | 0,006494 | chromatin organization |
| YJL182C | unknown | P46986 | -0,84505 | 0,006506 | unknown |
| YAR050W | FLO1 | P32768 | -1,06777 | 0,006524 | response to oxidative stress |
| YCL004W* | PGS1 | P25578 | -1,06198 | 0,007057 | lipid metabolism |
| YCR084C | TUP1 | P16649 | -0,80358 | 0,007425 | transcription regulation |
| YFR035C | unknown | P43608 | -0,91414 | 0,007469 | unknown |
| YBR164C | ARL1 | P38116 | -1,14691 | 0,007623 | vesicle transport |
| YER087W | AIM10 | P39965 | -1,0392 | 0,007903 | unknown |
| YAL016W | TPD3 | P31383 | -1,2793 | 0,007904 | cell cycle |
| YNL239W | LAP3 | Q01532 | -0,77652 | 0,008292 | transcription regulation |
| YML053C | unknown | Q04978 | -1,15255 | 0,008355 | unknown |
| YCR063W | BUD31 | P25337 | -0,9003 | 0,008484 | cell cycle progression |
| YPR122W | AXL1 | P40851 | -1,15161 | 0,008655 | mating/cell cycle |
| YOR357C | SNX3 | Q08826 | -0,9141 | 0,008685 | endosomal transport |
| YHR033W | unknown | P38690 | -1,03916 | 0,009233 | unknown |
| YBR027C | unknown | P38220 | -0,94287 | 0,009373 | unknown |
| YER174C | GRX4 | P32642 | -0,75323 | 0,009499 | response to oxidative stress/chromatin organization |

ORFs marked with * represent essential genes