

Supplementary Online Information:

Genetic Characterization of *Plasmodium* Putative Pantothenate Kinase Genes Reveals Their Essential Role in Malaria Parasite Transmission to the Mosquito.

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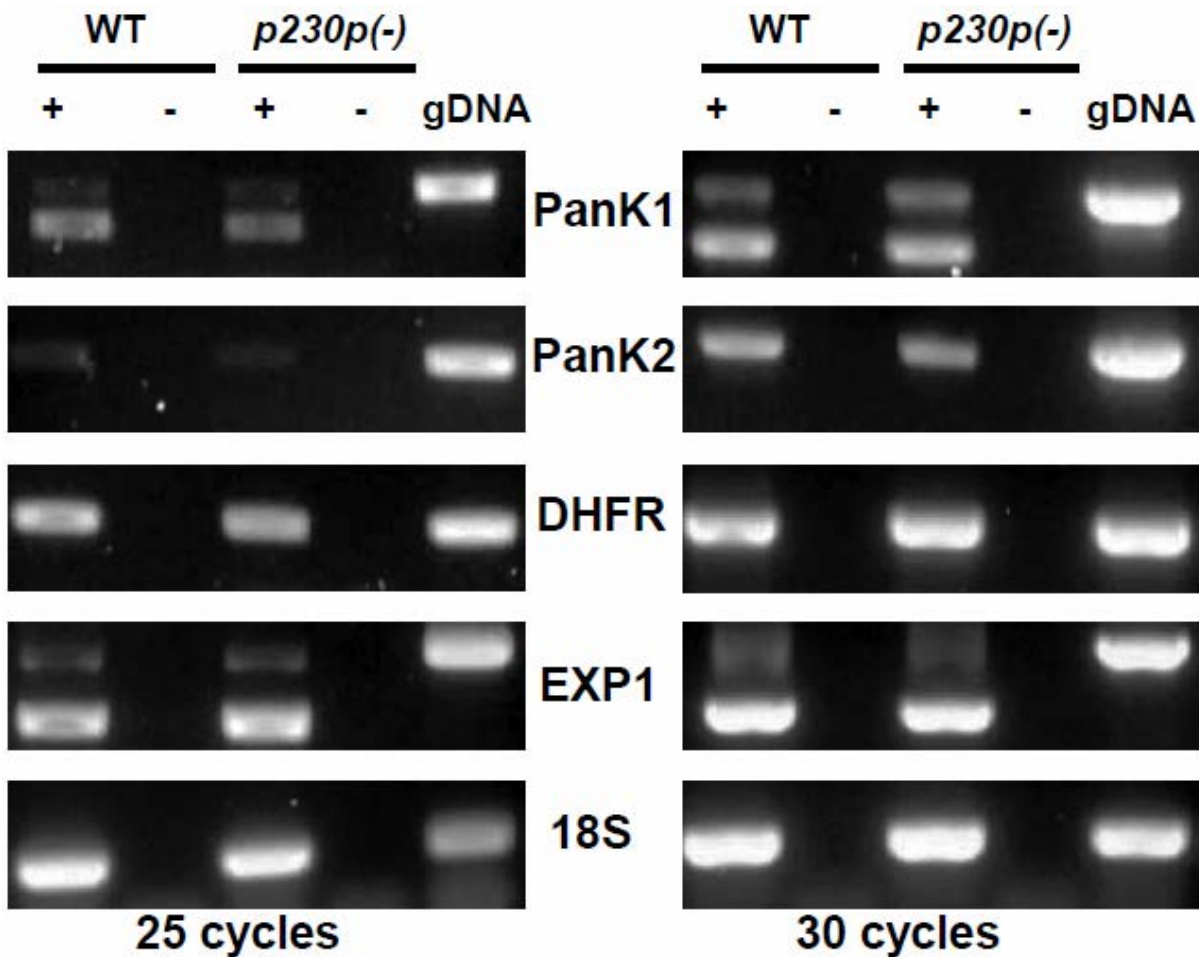
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Supplementary Table 1

Primer sequences (5'-3')

39: AGTATGGCATTTCATAAATCTTTGGCTGTAGTA;
40: ACTATTGTTTCATTATTATTATCAATTATACTT;
41: GGCCGCGGATGATAAACCATATTTTGAAGAAATTATTAGTGA;
42: TCCGGATCCGCTTATTCTGGATTTTCAAATGAATAGTTAATAA;
43: GCCCAAGCTTCTTTAAGAAATTATGAACAATTCAAGCAATCCAA;
44: TCCGGTACCTTCCTAATATATATGATTTATAAATTAATTTGAT;
45: GAAGATTTTATCATTATTCGAGTCAGAGTACATCA;
46: ACACGAACCCAAAGAAATCGGCAAGCTAAAATA;
47: ATTATATGGATGTGATTTTTTCAGGTAATTCTAA;
48: CATACTCAAATATCTTTTTAGTAGTTCCTCAATA;
51: GGCCGCGGGAATAATAAAAATCTTTTACACTATTATATCTGCT;
52: TCCGGATCCTTCCAATTAATCGATATATTTTTACTAATCAT;
53: TGCCAAGCTTTTTTAAATATGTAAATAGTAAAATAAAGAATATATG;
54: TCCGGTACCGTTAATGACATTGGTACGTGTGTGTATACTATTTT;
55: ACATTATTAATAATAATAGGTCATAAAAATAAAGG;
56: TCTAAACAAAATATCAACTTTTTTTGTTGTTTCCT;
57: GGCCGCGGAGCACAAATACCAATACAAATCAAATCACCCTT;
58: TCCGAATTCAGAAAAAAACCTCCGATAACTCCTAAAAATCC;
61: GGCCGCGGTGGGGCAAGACAAATATAAAAACCTTTAAAACCCAT;
62: TCCGGATCCAAAGGAGCATTATACTCCTATGATATTCCCCAT;
63: TGCCAAGCTTTTTTTGAAACACTTTTTTTTTTAAGTTATATTTG;
64: TCCGGTACCTTGACAACAAATATTATTTTTAATTTGAAAACG;
65: TGTAGTTAAGTGATCATATATAGTAACTGAGTT;
66: TGAAGCTCTATATATTTTGACTAAATACGAAATT;
67: GCAAAGTAAAGATGGTGAATTTTCATTAACGAA;
68: TCAATAAAAAAAGGGATATAACTGATTTATACCC;
16: ATGTCCATTAACATCACCATCTAATTCAACAAG;
17: GTGTTCTTTCTGATGTTCAAGAAGAAAAAGGTA;
real18S-F: GCGGCGAGTACGCTATATCC;
real18S-R: CATGTCTGAAGATGCGAGAAA;
realPank1-F: GTAGATATGTCTTTATAAACTTGAGG;
realPank1-R: AGAACTTCGGGGTATTGTATCATCT;
realPank2-F: CTTTGATATGTCTGTTGGCGATATT;
realPank2-R: ATTCATAGCTGACCCGAAACA;
realPAT-F: GTCCGCTTTAGGAGGAGTATTAG;
realPAT-R: ACGGTA CTACCAAACATAGC;
realPPCS-F: TGGATAATATATTGGGCGAACT;
realPPCS-R: CCTCCAGAGGTGACCAA;
realPPCDC-F: CGAGGTGATGATATCTTGCATATAGA;
realPPCDC-R: TCCAACAACGACAAATAGAGGT;
realPPAT-F: TGCCCTTGATATTGAGATATGTT;
realPPAT-R: GTGTTGATTTGTTGCTCTTAAT;
realDPCK-F: CATCAGTTCGGTAGTGGTGAA;
realDPCK-R: ACCTACAGCTATACCTCCTGTAA;
rtEXP1-F: AACAAAGTATGGTAAAAATGGCAAATATGGCTCC;
rtEXP1-R: GTTTTGAACATTTGGGGTGTTAGATGGTGCAGG;
rt18S-F: GCGGCTTAATTTGACTCAACACGGGGAACTCA;
rt18S-R: CCGCAAAAGAGCAAAAGGTAACCAATTGATTA;
rtDHFR-F: GTAAGAATATGGGAAGCTAATGGAACAAGAGAA;
rtDHFR-R: AGCATTACCAATACATGTATAAATTCAGCTGG.

Supplementary Figure 1



Supplement. Figure1: Similar transcription levels of *PanK1*, *PanK2* and different unrelated genes (*18S*, *EXP1* and *DHFR/TS*) during the blood stage cycle of *P. yoelii* 17XNL WT strain compared to *Pyp230p(-)* control WT-like strain. RT-PCR analysis of total RNA isolated from blood stage parasites of 17XNL WT and *Pyp230p(-)* strains (with similar infected blood parasitemia of ~1%) was performed using the primer pairs listed in Supplementary Table1. Control RT-PCR reactions on RNA in the absence of reverse transcription (-) and on genomic DNA were also performed. Similar amounts of RNA of 60 ng was used for each RT +/- reaction, while 20 ng of WT gDNA was used for each genomic PCR reaction.