**Additional file 1. Identification of TvPirin full-length cDNA and open reading frame**

A. Multiple alignment of 5’RACE, 3’RACE, and full-length cDNA clones of TvPirin

Five cDNA clones of the 5’RACE reactions (5’Pirin_#), 6 of the 3’RACE reactions (3’Pirin_#), and 4 of the full-length TvPirin (cTvPirin_#) are aligned to identify the open reading frame. Overlapping segments between the RACE clones and the full-length cDNA clones are in blue. The start codon is highlighted with green bold letters and the stop codon in red bold letters.
B. TvPirin deduced protein sequence from the full-length cTvPirin_1 clone

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adttccataaacatcaaatcccaataataaaaaacccgtcttctcgacgttatcatc
atgtccagtttccaacagcccagactagttccttggaagatctcggccaagtcccagttcc
M S S F Q Q P R L V A K K I S A K S Q S
gagggccgatggtgcacttgtaagaagaagactttgcagcctgagttgaagatctccttagat
E G D G A L V R R S I G R P E L K S L D
ccttcactggtagataattttgtgtaaccctcctctgtgagttccctctgaccatctct
P F L L D E F A V T P P A G F P D H P
cacgcagcttttgagactttcataaatatattgtgacagggagcctacacatcaagatttt
H R G F E T V T Y M L Q G G V T H Q D F
gccgttcataaggccaccatatgggtgtgagctcagttgagctgaactgccgcaagagg
A G H K G T I G A G D V Q W M T A R G
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I V H S E M P A G E G T H T G L Q L W I
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N L S S K D K M I E P R Y Q E L L S N D
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P F L L D E F A V T P P A G F P D H P
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A G H K G T I G A G D V Q W M T A R G
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N L S S K D K M I E P R Y Q E L L S N D
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P F L L D E F A V T P P A G F P D H P
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I V H S E M P A G E G T H T G L Q L W I
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N L S S K D K M I E P R Y Q E L L S N D
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P F L L D E F A V T P P A G F P D H P
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I V H S E M P A G E G T H T G L Q L W I
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N L S S K D K M I E P R Y Q E L L S N D
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N L S S K D K M I E P R Y Q E L L S N D
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A G H K G T I G A G D V Q W M T A R G
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I V H S E M P A G E G T H T G L Q L W I
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N L S S K D K M I E P R Y Q E L L S N D
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A G H K G T I G A G D V Q W M T A R G
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