

Supplementary Information

1 GGGGGGGGCGGTGTATCCTGACGTGATTCCCGGGAGTCTGCAGAAGCTCAGCCAAAAG
61 GCAGAGGATAATGCATAAAAAGAGCAGCACTTTGCATTTAGGATTACATTTAGAATCAAGA
121 TGAAAATAATTACCGTGGTCGTTTTGCCTGTATTGGAGCTGTCAAAGCTTTGCACAAT
1 M K I I T V V V L P V L E L S N C F A Q
181 CAGGAGACAGCTTTTTATTATACAATGTGGACTCTAATAAATGCCTGACTAGCACTTTGA
21 S G D S F L L Y N V D S N K C L T S T L
241 ACAGGCTTGTACCTGTGACCCACACAGTGCCCAACAAAAGTTCCGCTGGACTTCAAGTA
41 N R L V T C D P H S A Q Q K F R W T S S
301 ACCGCATTTTGAACACTTTCACAAAGACGTGTCTTGGAGTGGGAAGTAAAGCGGTGGGCA
61 N R I L N T F T K T C L G V G S K A V G
361 AAATCTGCAGCCCTTAAAGTGCAACGATGACAATGCTCTGCAGAAGTGGGAATGCCATG
81 K T L Q P L K C N D D N A L Q K W E C H
421 GGAACACATTGCTTGGACTAAAGAATGAGACTCTGTTCCCTGGCTGTAGATTTTAGGGGT
101 G N T L L G L K N E T L F L A V D F R G
481 TACCTGAGATTTCTAATAAGACTGGAATCAGAAGCAAATGGACAATTCATGGCACACAGG
121 L P E I S N K T G I R S K W T I H G T Q
541 ACAGCATTTGCTCTCGGCCTTATGAAGAAATCTACAGCATTGATGGAAATGGATTTGGGC
141 D S I C S R P Y E E I Y S I D G N G F G
601 AGACATGCAAGTTTCCTTTTTGTATGAGAAAAAGTGGTATGCAGATTGTACCACAGTTG
161 Q T C K F P F L Y E K K W Y A D C T T V
661 ATGAACCGGACCAGCGTCTGTGGTGCGCAACCAAGACTGACTACAGTTTATATGAGCAGT
181 D E P D Q R L W C A T K T D Y S L Y E Q
721 GGGGATACTGTCCAACACGTGATAGTAAATACTGGACAAAACATCCTCTAACAAACGTCT
201 W G Y C P T R D S K Y W T K H P L T N V
781 ACTACCAGCTGAATGACAGGTCAACTCTGACATGGTACCAGGCTAGAAAGAGCTGTCCAGC
221 Y Y Q L N D R S T L T W Y Q A R K S C Q
841 AGCAAGGCGCTGAATTGCTGAGCATATCTGAACCTCACGAACAATCCTTCATAGCAGGAA
241 Q Q G A E L L S I S E P H E Q S F I A G
901 TGTTTCAGAAGTCACAAGGCTCACTATGGATAGGACTGAACAAGTTAGATGTGTCCAGTG
261 M F Q K S Q G S L W I G L N K L D V S S
961 GATGGCAGTGGAGCAATGGACAGCCTTTACGCTATTTGAAATGGCTCAGTGGATTCCCAA
281 G W Q W S N G Q P L R Y L K W L S G F P
1021 GCTCACAACCAGGCTACAATTGTGGCGTCTTGAAAAATGGCTATAATTCAGAATGGTCAA
301 S S Q P G Y N C G V L K N G Y N S E W S
1081 ATGATGCTTGCTCTGAAAAACGTGGATACATCTGCCAACGAGGTCATTCTGTTCCCTACTG
321 N D A C S E K R G Y I C Q R G H S V P T
1141 TTCCACCAGAAGTGACGACTGGATTTTGCCAAAGCCCCTGGATTCCACATTCTGGCAACT
341 V P P E V T T G F C Q S P W I P H S G N
1201 GTTATTTTCTACACCGCACTAAGCAAACATGGCTGGAGGCACGGGACATCTGTCTGCGGG
361 C Y F L H R T K Q T W L E A R D I C L R
1261 AAGGAGGAGACCTGCTAAGTATTCTCAGCACAGAAGAGCAAAGCTTTGCCATCACACAGC
381 E G G D L L S I L S T E E Q S F A I T Q
1321 TTGGATACTCAAAGACTGATCAGCTGTGGATTGGTTTCAATGACCGCAAAACACAGATGT
401 L G Y S K T D Q L W I G F N D R K T Q M

Figure S1. Cont.

1381 TGTTTGAATGGAGTGACCAGTCTAGCGTCCCGTTTGCCTCATGGGAGGTTGGCGAGCCGA
 421 L F E W S D Q S S V P F A S W E V G E P
 1441 CTCACAGTGCTCAGCATGCCGAAGACTGCGTGTTAATGAGAGGGGAGGAGGGAAAGTGGG
 441 T H S A Q H A E D C V L M R G E E G K W
 1501 CTGATGATGTTTGTGAAAAAATATGGCTTCATCTGTAAGAGAAAGACCAGCACTAAAG
 461 A D D V C E K K Y G F I C K R K T S T K
 1561 CCTCAAATAATGACACGGTTGTGCGCAAATCCAGGATGCAAAAAGGGCTGGATCAGGTATG
 481 A S N N D T V V A N P G C K K G W I R Y
 1621 GGTACTATTGTTACATGGCAGGATCCGAGACAAAGACCTCCGAAGAGGCCAAAACAGACGT
 501 G Y Y C Y M A G S E T K T S E E A K Q T
 1681 GTGAAAAGCAGAGTCTCGACTTGTAGATGTTTCATCCAGAGTAGAAAATGCATTCCTGG
 521 C E K A E S R L V D V S S R V E N A F L
 1741 TTAATCTAGTAGGAGCACGACCAGAGAAGTACTTCTGGATTGGACTGTCTAATCAGAAGG
 541 V N L V G A R P E K Y F W I G L S N Q K
 1801 ACGTACACACTTTTGTAGTGACCAACACTAAGCAAGTCCCATTCACTCACTTCAACTCTG
 561 D V H T F E W T N T K Q V P F T H F N S
 1861 GGATGCCAGGAAGAAAACAAGGCTGTGTTGCAATGACGACTGGAATAGTTGCTGGGCTTT
 581 G M P G R K Q G C V A M T T G I V A G L
 1921 GGGATGTGCTTAGCTGTTCAAATAAGGAAAAATACATCTGCAAGCAAAGAGCTGATGCTC
 601 W D V L S C S N K E K Y I C K Q R A D A
 1981 TAGTAACAACCGCAGCCCCGCCAACCACCCTTCCCTGGACTGTCCCACAGAATGGACTT
 621 L V T T A A P P T T P S L D C P T E W T
 2041 CAATTGGGACAAGAGACCTCTGTGTCAAGCATTTCATGTACCTTCACTGCAAAATGAAAA
 641 S I G T R D L C V K H F N V P S L Q M K
 2101 CATGGGATCAAGCCCTGGACTACTGCAGAGAACTCGGTGGTGACCTCCTGAGCATCCATC
 661 T W D Q A L D Y C R E L G G D L L S I H
 2161 ATGAATCTGATATCCCTGGAACAAGGAGGAGGGTATCCATCTTGGATTGGTTACAGAA
 681 H E S D I P W K Q G G G Y P S W I G Y R
 2221 TGTATGATCCCTCTGTGGGTTACGTTTGGAGTGACGGCTCTTCGTCGTCCTATCAAAGCT
 701 M Y D P S V G Y V W S D G S S S S Y Q S
 2281 GGGCCAGCGATGAACCAAACAACCTAAAACAACATGGAATAATGTGTTGAAATGAGAGTGT
 721 W A S D E P N N L N N M E N C V E M R V
 2341 CGCTGTGGGACGATGATGGGATGTGGAATGACGTGAACTGTAAAGACAAGAAGGACTGGT
 741 S L W D D D G M W N D V N C K D K K D W
 2401 ACTGTCAGATCCACAAAGGAAAGACTCCAGTTGAGGTGAATATTACAGAACCAGTTTATA
 761 Y C Q I H K G K T P V E V N I T E P V Y
 2461 ATGTAACAGAGGATGGCTGGATTGAATTCAGAGGTAGCCAGTATTATGGGTCGGAGTACT
 781 N V T E D G W I E F R G S Q Y Y G S E Y
 2521 CAGCGATGTCTATGCATGAAGCACGGGCTTCTGTAAAAGAAATCATGGCGATCTTGTAG
 801 S A M S M H E A R A F C K R N H G D L V
 2581 TCATCAACGATGAGGAGGAGCGACTGTTCTCTGGCATAAGTCTAAAGAGTTGTACAACG
 821 V I N D E E E R L F L W H K S K E L Y N
 2641 ATTTTCTCATTGGCTTGACGGTTGATCTGGATGGATCTTCCAGTGGATGGATGGGTCTC
 841 D F L I G L T V D L D G S F Q W M D G S

Figure S1. Cont.

2701 CTGTTGTGTTTCAAGCTTGGGAAGCAAATCAACCTGCCTTTAAAAACAGTGAGGAAAGGT
 861 P V V F Q A W E A N Q P A F K N S E E R
 2761 GCGCAAAGATGACCATATCTCAAGGACTCTGGGAAACCGTCAACTGTGGTGATGAATATA
 881 C A K M T I S Q G L W E T V N C G D E Y
 2821 ATTATTTTGAAGCGAAGTGAGGCTCCTCCAGTTAATGCTACTGTGGCCCTACACAGC
 901 N Y F C K R S E A P P V N A T V A P T Q
 2881 CACCAAAAGGAGGCTGTGCGCCTGAGTGGACACAGTTCGAGGGAAAGTGCTACAATGTGA
 921 P P K G G C A P E W T Q F E G K C Y N V
 2941 GGGGGGAAATGAAAAAATGGAGCGAAGCAAGAGAATACTGCAGAGAACACGGTGGAGATC
 941 R G E M K K W S E A R E Y C R E H G G D
 3001 TGACAGCTATTATGAGCAAATCCAGCAAACATTTTAAAGCACAATGATTGAGATAAAT
 961 L T A I M S K F Q Q T F L S T M I R D K
 3061 CCACTAACTTTTGGATTGGATTGAGCAATCTGGCAAATGGAAGGTTCAAGTGGACAGATG
 981 S T N F W I G F S N L A N G R F K W T D
 3121 GGAGTAAAGTTTCATTCACAGAGTGGGCTGAAGGGGAACCTCATTCTTAGTATGGTCAC
 1001 G S K V S F T E W A E G E P H S L V W S
 3181 GTTCATACTACTGGACAAAATACTTTTCGGACGAGCCGGAATGTGTTTTTATGGGCAGGA
 1021 R S Y Y W T K Y F S D E P E C V F M G R
 3241 GTTCAGGATCTCACTTTAGCAAGTGGGTGGCAGACGACTGTAATTCTACTAATGGCTTCA
 1041 S S G S H F S K W V A D D C N S T N G F
 3301 TTTGCAGTCGTGATGTTGATCCAGGTATCCCCTCAGTGCCAACTGAGATTCTAAAACCT
 1061 I C S R D V D P G I P S V P T E I P K T
 3361 TTGTCAAGCTTGGAAATTCATCTTTCAAAGTGATTCAAGAAAACCTAACGTGGATTGAGG
 1081 F V K L G N S S F K V I Q E N L T W I E
 3421 CAAATCGTCGCTGTAAGGCAGAAGGGGGTCTCTGGCCAGTATTCGGGACTTGATATCAC
 1101 A N R R C K A E G G H L A S I R D L I S
 3481 AAGCTTACATTGAGTTGCAGGTCTTCAGACTCAAGCAGCCTATGTGGATTGGTCTCAACA
 1121 Q A Y I E L Q V F R L K Q P M W I G L N
 3541 GTGAACAGTCAAATGGATATTTTCTGTGGGTGAATAAATGGCCAATGACCATGGAGAAAT
 1141 S E Q S N G Y F L W V N K W P M T M E K
 3601 GGGCGATATCTGAACCTAGGCCCAACAAACCTTGTGCACACATGAAAATAAATGGAGAAT
 1161 W A I S E P R P N K P C A H M K I N G E
 3661 GGAAAACGTCTCTATGCAATGAAACCTTCTACAGTGTCTGTGAGCAAACAACGGACATTC
 1181 W K T S L C N E T F Y S V C E Q T T D I
 3721 CGCCAACCCTTCCAGCACAGCAGCCCGGACACTGTCAAAGCAAGAAAATTACAGTCCCC
 1201 P P T L P A Q Q P G H C P K Q E N Y S P
 3781 TGAGGTGGATACCTTTTCAGAGACAGCTGCTATGCTTTTGTGACAGAAATGAAATCATGGA
 1221 L R W I P F R D S C Y A F V T E M K S W
 3841 GCAGAGCAGCAAGACTTTGTATGACATGGGGAGCTTCTCTTGCCAGCATCAGAGATGAAG
 1241 S R A A R L C M T W G A S L A S I R D E
 3901 CGGAGGAGAAGTTTATAGAAAAGCAACCTCTTGCTCCTGAAAGTTATAAAGAATTTTGG
 1261 A E E K F I E S N L L L L E S Y K E F W
 3961 TTGGATTGTTACACAACCATAAAGGACACTGGTTATGGGCAGACAACAGTGGTAGATT
 1281 I G L L H N H K G H W L W A D N S V V D

Figure S1. *Cont.*

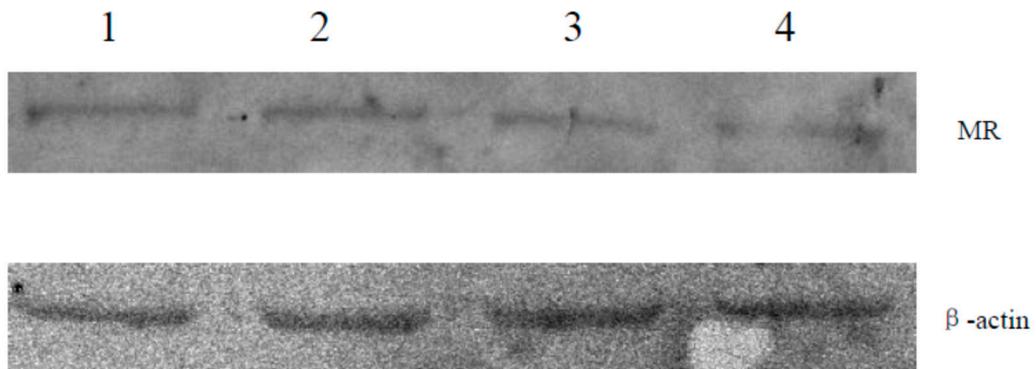


Figure S2. The expression of MR in the liver and spleen of zebra fish with or without the infection of *Aeromonas sobria*. The upper part of the figure is MR, the lower part of the figure is β -actin. Lane: 1: liver of control fish; 2: liver of infected fish; 3: spleen of control fish; 4: spleen of infected fish.