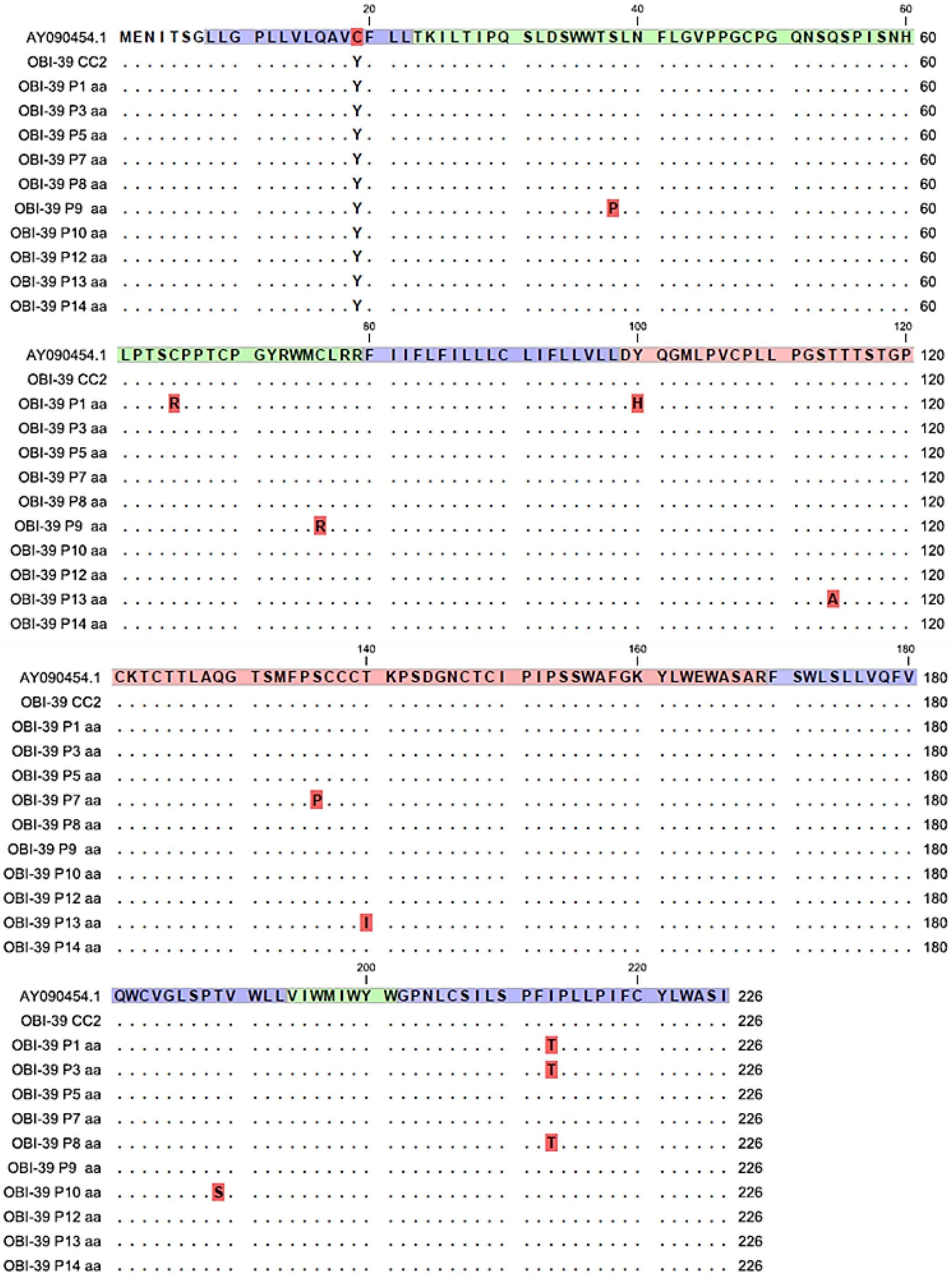
Supplementary Figure 1 legend

Supplementary Figure 1. Deduced amino acid sequence analysis of the HBsAg. Aligments of the deduced amino acid sequences obtained from ten S gen sequences of OBI patients. The aligment was performed using one reference HBV sequence genotype H (AY0954.1) with the CLCbio software. The colors shadow in the first line indicate the HBsAg domain. Residues identical to the genotype H reference consensus are indicated by dots. Mutations in red boxes.

Alignment of amino acid sequences deduced from OBI-39 sample clones



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                                       20                             40                             60
AY090454.1    MENITSGLLG PLLVLQAVCF LLTKILTIPQ SLDSWWTSLN FLGVPPGCPG QNSQSPISNH  60
OBI-39 CC2    .......... ........Y. .......... .......... .......... ..........  60
OBI-39 P1 aa  .......... ........Y. .......... .......... .......... ..........  60
OBI-39 P3 aa  .......... ........Y. .......... .......... .......... ..........  60
OBI-39 P5 aa  .......... ........Y. .......... .......... .......... ..........  60
OBI-39 P7 aa  .......... ........Y. .......... .......... .......... ..........  60
OBI-39 P8 aa  .......... ........Y. .......... .......... .......... ..........  60
OBI-39 P9  aa .......... ........Y. .......... .......P.. .......... ..........  60
OBI-39 P10 aa .......... ........Y. .......... .......... .......... ..........  60
OBI-39 P12 aa .......... ........Y. .......... .......... .......... ..........  60
OBI-39 P13 aa .......... ........Y. .......... .......... .......... ..........  60
OBI-39 P14 aa .......... ........Y. .......... .......... .......... ..........  60
                                       80                            100                            120
AY090454.1    LPTSCPPTCP GYRWMCLRRF IIFLFILLLC LIFLLVLLDY QGMLPVCPLL PGSTTTSTGP 120
OBI-39 CC2    .......... .......... .......... .......... .......... .......... 120
OBI-39 P1 aa  ....R..... .......... .......... .........H .......... .......... 120
OBI-39 P3 aa  .......... .......... .......... .......... .......... .......... 120
OBI-39 P5 aa  .......... .......... .......... .......... .......... .......... 120
OBI-39 P7 aa  .......... .......... .......... .......... .......... .......... 120
OBI-39 P8 aa  .......... .......... .......... .......... .......... .......... 120
OBI-39 P9  aa .......... .....R.... .......... .......... .......... .......... 120
OBI-39 P10 aa .......... .......... .......... .......... .......... .......... 120
OBI-39 P12 aa .......... .......... .......... .......... .......... .......... 120
OBI-39 P13 aa .......... .......... .......... .......... .......... ...A...... 120
OBI-39 P14 aa .......... .......... .......... .......... .......... .......... 120
                                      140                            160                            180
AY090454.1    CKTCTTLAQG TSMFPSCCCT KPSDGNCTCI PIPSSWAFGK YLWEWASARF SWLSLLVQFV 180
OBI-39 CC2    .......... .......... .......... .......... .......... .......... 180
OBI-39 P1 aa  .......... .......... .......... .......... .......... .......... 180
OBI-39 P3 aa  .......... .......... .......... .......... .......... .......... 180
OBI-39 P5 aa  .......... .......... .......... .......... .......... .......... 180
OBI-39 P7 aa  .......... .....P.... .......... .......... .......... .......... 180
OBI-39 P8 aa  .......... .......... .......... .......... .......... .......... 180
OBI-39 P9  aa .......... .......... .......... .......... .......... .......... 180
OBI-39 P10 aa .......... .......... .......... .......... .......... .......... 180
OBI-39 P12 aa .......... .......... .......... .......... .......... .......... 180
OBI-39 P13 aa .......... .........I .......... .......... .......... .......... 180
OBI-39 P14 aa .......... .......... .......... .......... .......... .......... 180
                                      200                            220
AY090454.1    QWCVGLSPTV WLLVIWMIWY WGPNLCSILS PFIPLLPIFC YLWASI 226
OBI-39 CC2    .......... .......... .......... .......... ...... 226
OBI-39 P1 aa  .......... .......... .......... ..T....... ...... 226
OBI-39 P3 aa  .......... .......... .......... ..T....... ...... 226
OBI-39 P5 aa  .......... .......... .......... .......... ...... 226
OBI-39 P7 aa  .......... .......... .......... .......... ...... 226
OBI-39 P8 aa  .......... .......... .......... ..T....... ...... 226
OBI-39 P9  aa .......... .......... .......... .......... ...... 226
OBI-39 P10 aa ........S. .......... .......... .......... ...... 226
OBI-39 P12 aa .......... .......... .......... .......... ...... 226
OBI-39 P13 aa .......... .......... .......... .......... ...... 226
OBI-39 P14 aa .......... .......... .......... .......... ...... 226
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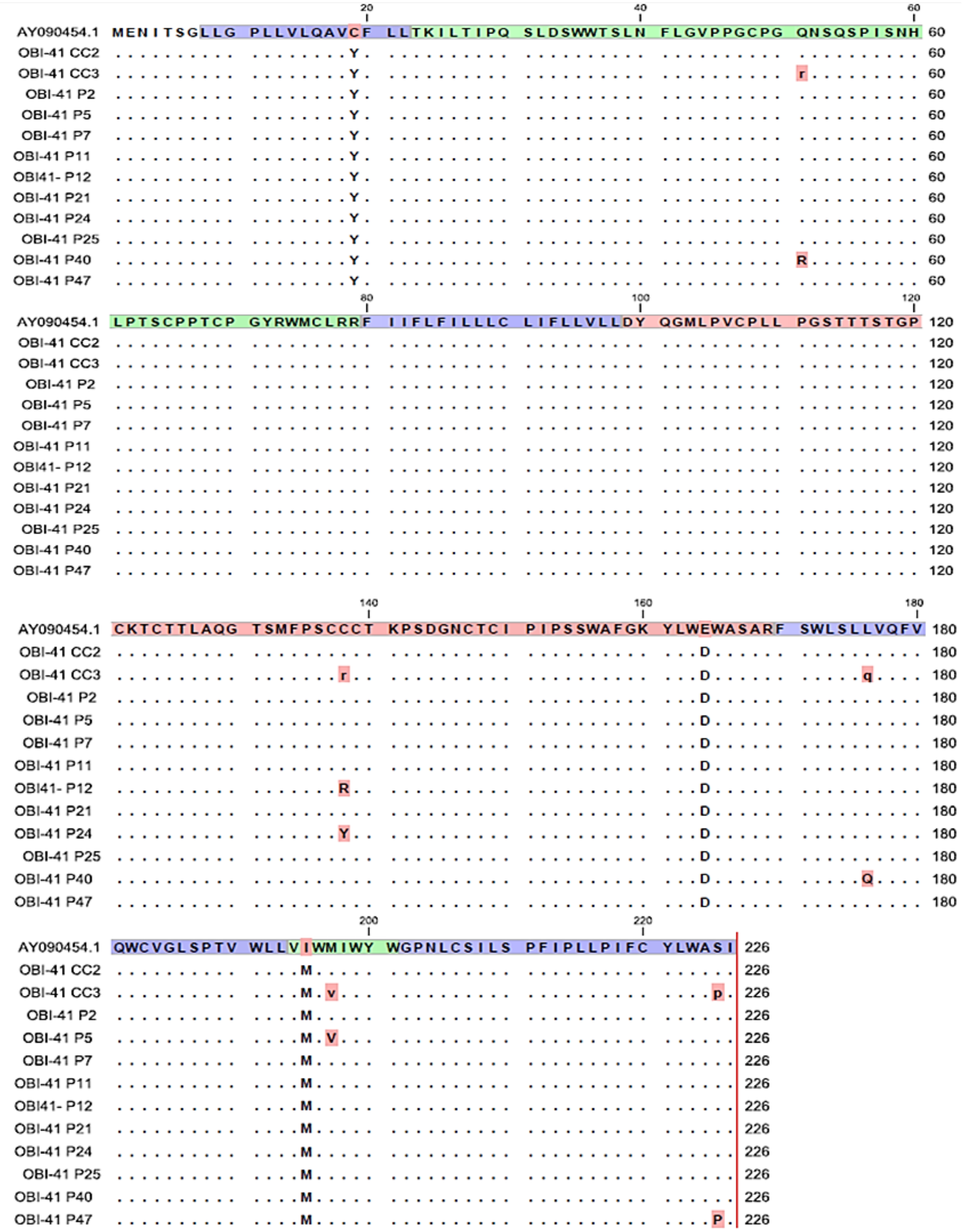
Alignment of amino acid sequences deduced from OBI-41 sample clones



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                                  20                    40                    60
AY090454.1     MENITSGLLG PLLVLQAVCF LLTKILTIPQ SLDSWWTSLN FLGVPPGCPG QNSQSPISNH 60
OBI-41 CC2     .......... ........Y. .......... .......... .......... .......... 60
OBI-41 CC3     .......... ........Y. .......... .......... .......... r......... 60
OBI-41 P2      .......... ........Y. .......... .......... .......... .......... 60
OBI-41 P5      .......... ........Y. .......... .......... .......... .......... 60
OBI-41 P7      .......... ........Y. .......... .......... .......... .......... 60
OBI-41 P11     .......... ........Y. .......... .......... .......... .......... 60
OBI41- P12     .......... ........Y. .......... .......... .......... .......... 60
OBI-41 P21     .......... ........Y. .......... .......... .......... .......... 60
OBI-41 P24     .......... ........Y. .......... .......... .......... .......... 60
OBI-41 P25     .......... ........Y. .......... .......... .......... .......... 60
OBI-41 P40     .......... ........Y. .......... .......... .......... R......... 60
OBI-41 P47     .......... ........Y. .......... .......... .......... .......... 60
                                  80                    100                   120
AY090454.1     LPTSCPPTCP GYRWMCLRRF IIFLFILLLC LIFLLVLLDY QGMLPVCPLL PGSTTTSTGP 120
OBI-41 CC2     .......... .......... .......... .......... .......... .......... 120
OBI-41 CC3     .......... .......... .......... .......... .......... .......... 120
OBI-41 P2      .......... .......... .......... .......... .......... .......... 120
OBI-41 P5      .......... .......... .......... .......... .......... .......... 120
OBI-41 P7      .......... .......... .......... .......... .......... .......... 120
OBI-41 P11     .......... .......... .......... .......... .......... .......... 120
OBI41- P12     .......... .......... .......... .......... .......... .......... 120
OBI-41 P21     .......... .......... .......... .......... .......... .......... 120
OBI-41 P24     .......... .......... .......... .......... .......... .......... 120
OBI-41 P25     .......... .......... .......... .......... .......... .......... 120
OBI-41 P40     .......... .......... .......... .......... .......... .......... 120
OBI-41 P47     .......... .......... .......... .......... .......... .......... 120

                                  140                   160                   180
AY090454.1     CKTCTTLAQG TSMFPSCCCT KPSDGNCTCI PIPSSWAFGK YLWEWASARF SWLSLLVQFV 180
OBI-41 CC2     .......... .......... .......... .......... ...D...... .......... 180
OBI-41 CC3     .......... ......r... .......... .......... ...D...... .....q.... 180
OBI-41 P2      .......... .......... .......... .......... ...D...... .......... 180
OBI-41 P5      .......... .......... .......... .......... ...D...... .......... 180
OBI-41 P7      .......... .......... .......... .......... ...D...... .......... 180
OBI-41 P11     .......... .......... .......... .......... ...D...... .......... 180
OBI41- P12     .......... ......R... .......... .......... ...D...... .......... 180
OBI-41 P21     .......... .......... .......... .......... ...D...... .......... 180
OBI-41 P24     .......... ......Y... .......... .......... ...D...... .......... 180
OBI-41 P25     .......... .......... .......... .......... ...D...... .......... 180
OBI-41 P40     .......... .......... .......... .......... ...D...... .....Q.... 180
OBI-41 P47     .......... .......... .......... .......... ...D...... .......... 180
                                  200                   220
AY090454.1     QWCVGLSPTV WLLVIWMIWY WGPNLCSILS PFIPLLPIFC YLWASI 226
OBI-41 CC2     .......... ....M..... .......... .......... ...... 226
OBI-41 CC3     .......... ....M.v... .......... .......... ....p. 226
OBI-41 P2      .......... ....M..... .......... .......... ...... 226
OBI-41 P5      .......... ....M.V... .......... .......... ...... 226
OBI-41 P7      .......... ....M..... .......... .......... ...... 226
OBI-41 P11     .......... ....M..... .......... .......... ...... 226
OBI41- P12     .......... ....M..... .......... .......... ...... 226
OBI-41 P21     .......... ....M..... .......... .......... ...... 226
OBI-41 P24     .......... ....M..... .......... .......... ...... 226
OBI-41 P25     .......... ....M..... .......... .......... ...... 226
OBI-41 P40     .......... ....M..... .......... .......... ...... 226
OBI-41 P47     .......... ....M..... .......... .......... ....P. 226
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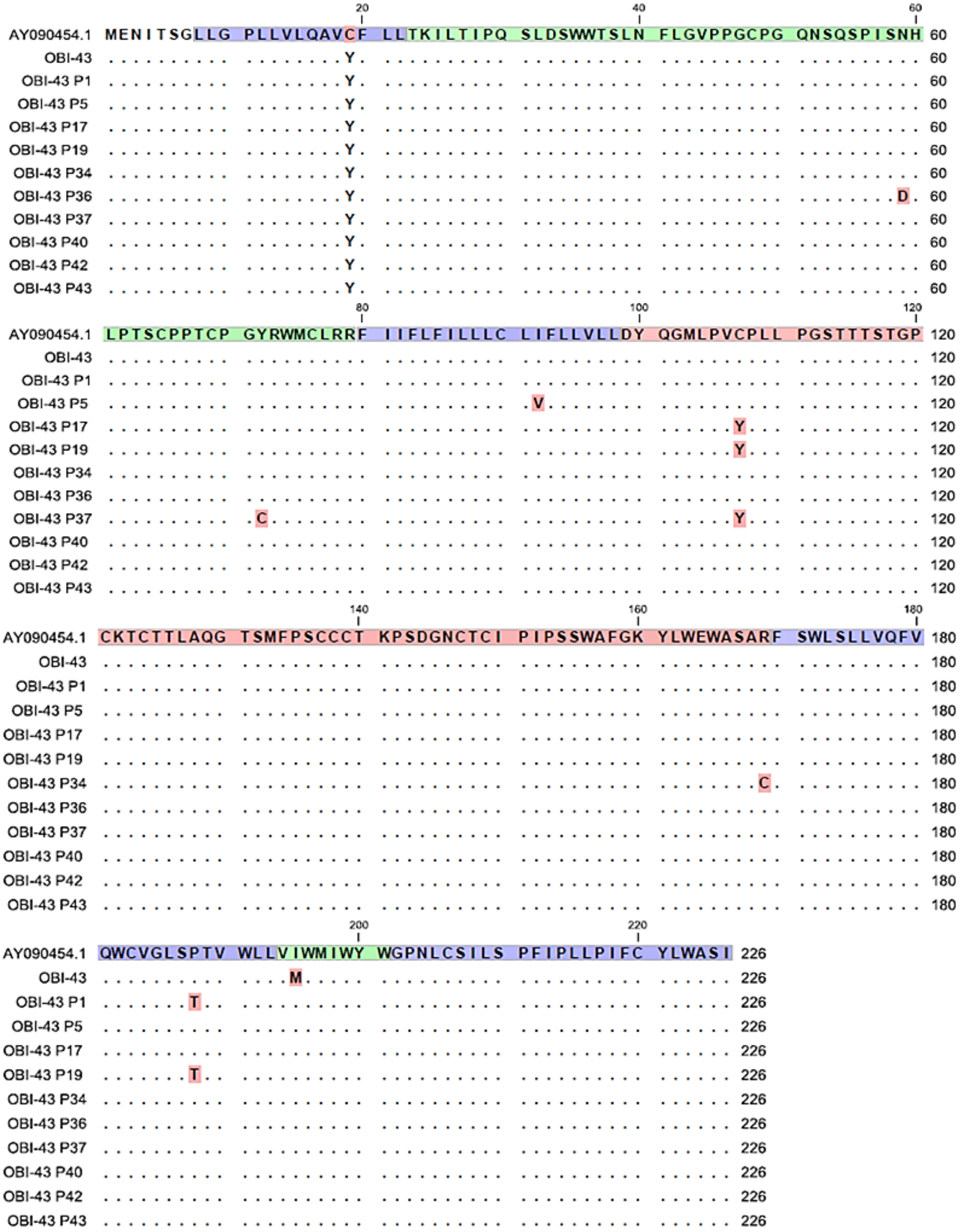
Supplementary Figure 1. Alignment of amino acid sequences deduced from sample clones OBI-43. Residues identical to the genotype H reference consensus are indicated by dots. Mutations in red boxes.

Alignment of amino acid sequences deduced from OBI-43 sample clones



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                                      20                                      40                                      60
                                       |                                       |                                       |
AY090454.1  MENITSGLLG PLLVLQAVCF LLTKILTIPQ SLDSWWTSLN FLGVPPGCPG QNSQSPISNH  60
    OBI-43  .......... .........Y .......... .......... .......... ..........  60
 OBI-43 P1  .......... .........Y .......... .......... .......... ..........  60
 OBI-43 P5  .......... .........Y .......... .......... .......... ..........  60
OBI-43 P17  .......... .........Y .......... .......... .......... ..........  60
OBI-43 P19  .......... .........Y .......... .......... .......... ..........  60
OBI-43 P34  .......... .........Y .......... .......... .......... ..........  60
OBI-43 P36  .......... .........Y .......... .......... .......... ........D.  60
OBI-43 P37  .......... .........Y .......... .......... .......... ..........  60
OBI-43 P40  .......... .........Y .......... .......... .......... ..........  60
OBI-43 P42  .......... .........Y .......... .......... .......... ..........  60
OBI-43 P43  .......... .........Y .......... .......... .......... ..........  60
                                      80                                     100                                     120
                                       |                                       |                                       |
AY090454.1  LPTSCPPTCP GYRWMCLRRF IIFLFILLLC LIFLLVLLDY QGMLPVCPLL PGSTTTSTGP  120
    OBI-43  .......... .......... .......... .......... .......... ..........  120
 OBI-43 P1  .......... .......... .......... .......... .......... ..........  120
 OBI-43 P5  .......... .......... .......... .V........ .......... ..........  120
OBI-43 P17  .......... .......... .......... .......... ......Y... ..........  120
OBI-43 P19  .......... .......... .......... .......... ......Y... ..........  120
OBI-43 P34  .......... .......... .......... .......... .......... ..........  120
OBI-43 P36  .......... .......... .......... .......... .......... ..........  120
OBI-43 P37  .......... .C........ .......... .......... ......Y... ..........  120
OBI-43 P40  .......... .......... .......... .......... .......... ..........  120
OBI-43 P42  .......... .......... .......... .......... .......... ..........  120
OBI-43 P43  .......... .......... .......... .......... .......... ..........  120
                                     140                                     160                                     180
                                       |                                       |                                       |
AY090454.1  CKTCTTLAQG TSMFPSCCCT KPSDGNCTCI PIPSSWAFGK YLWEWASARF SWLSLLVQFV  180
    OBI-43  .......... .......... .......... .......... .......... ..........  180
 OBI-43 P1  .......... .......... .......... .......... .......... ..........  180
 OBI-43 P5  .......... .......... .......... .......... .......... ..........  180
OBI-43 P17  .......... .......... .......... .......... .......... ..........  180
OBI-43 P19  .......... .......... .......... .......... .......... ..........  180
OBI-43 P34  .......... .......... .......... .......... ........C. ..........  180
OBI-43 P36  .......... .......... .......... .......... .......... ..........  180
OBI-43 P37  .......... .......... .......... .......... .......... ..........  180
OBI-43 P40  .......... .......... .......... .......... .......... ..........  180
OBI-43 P42  .......... .......... .......... .......... .......... ..........  180
OBI-43 P43  .......... .......... .......... .......... .......... ..........  180
                                     200                                     220
                                       |                                       |
AY090454.1  QWCVGLSPTV WLLVIWMIWY WGPNLCSILS PFIPLLPIFC YLWASI  226
    OBI-43  .......... ....M..... .......... .......... ......  226
 OBI-43 P1  .......T.. .......... .......... .......... ......  226
 OBI-43 P5  .......... .......... .......... .......... ......  226
OBI-43 P17  .......... .......... .......... .......... ......  226
OBI-43 P19  .......T.. .......... .......... .......... ......  226
OBI-43 P34  .......... .......... .......... .......... ......  226
OBI-43 P36  .......... .......... .......... .......... ......  226
OBI-43 P37  .......... .......... .......... .......... ......  226
OBI-43 P40  .......... .......... .......... .......... ......  226
OBI-43 P42  .......... .......... .......... .......... ......  226
OBI-43 P43  .......... .......... .......... .......... ......  226
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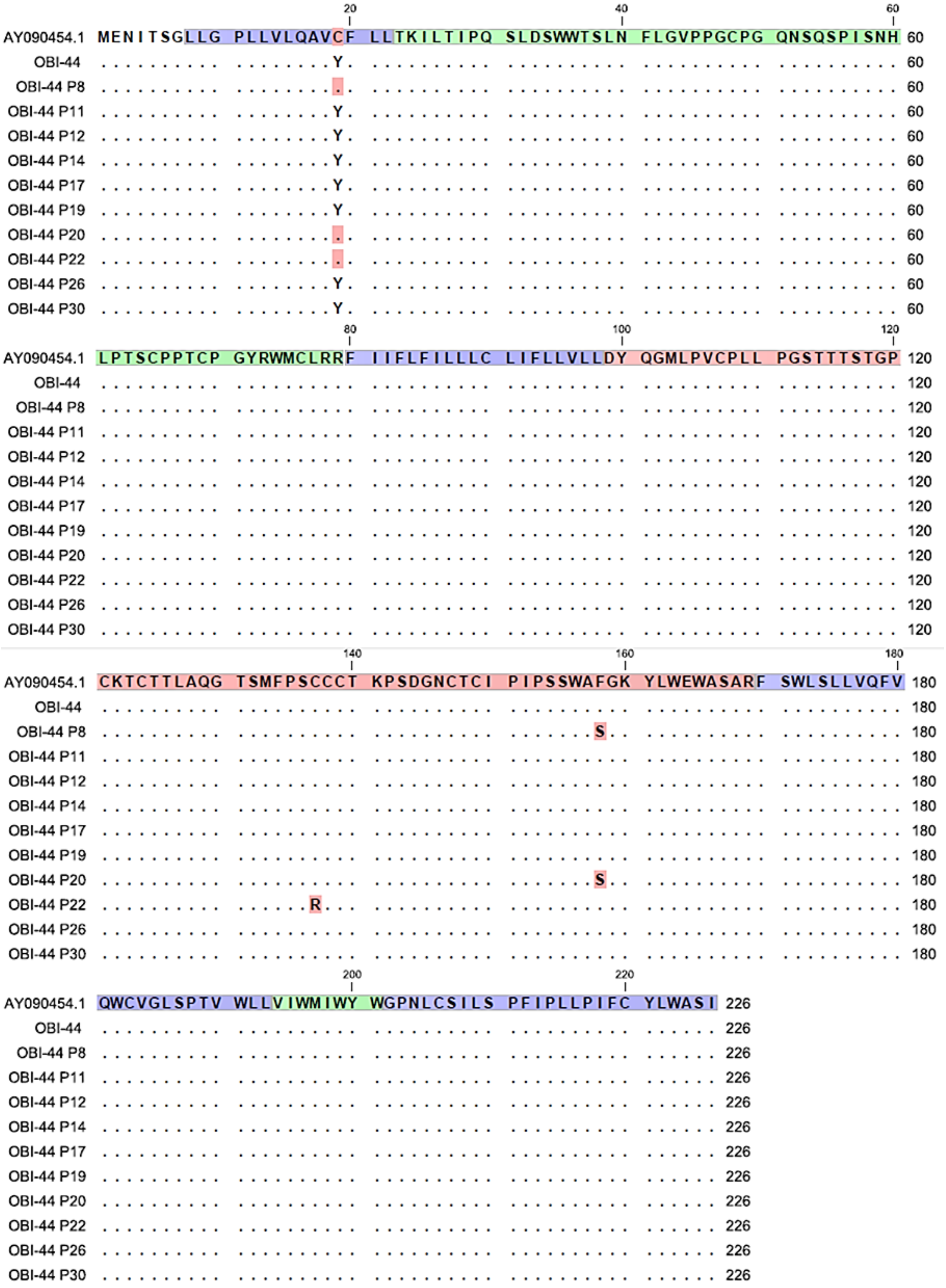
Supplementary Figure 1. Alignment of amino acid sequences deduced from sample clones OBI-43. Residues identical to the genotype H reference consensus are indicated by dots. Mutations in red boxes.

Alignment of amino acid sequences deduced from OBI-44 sample clones



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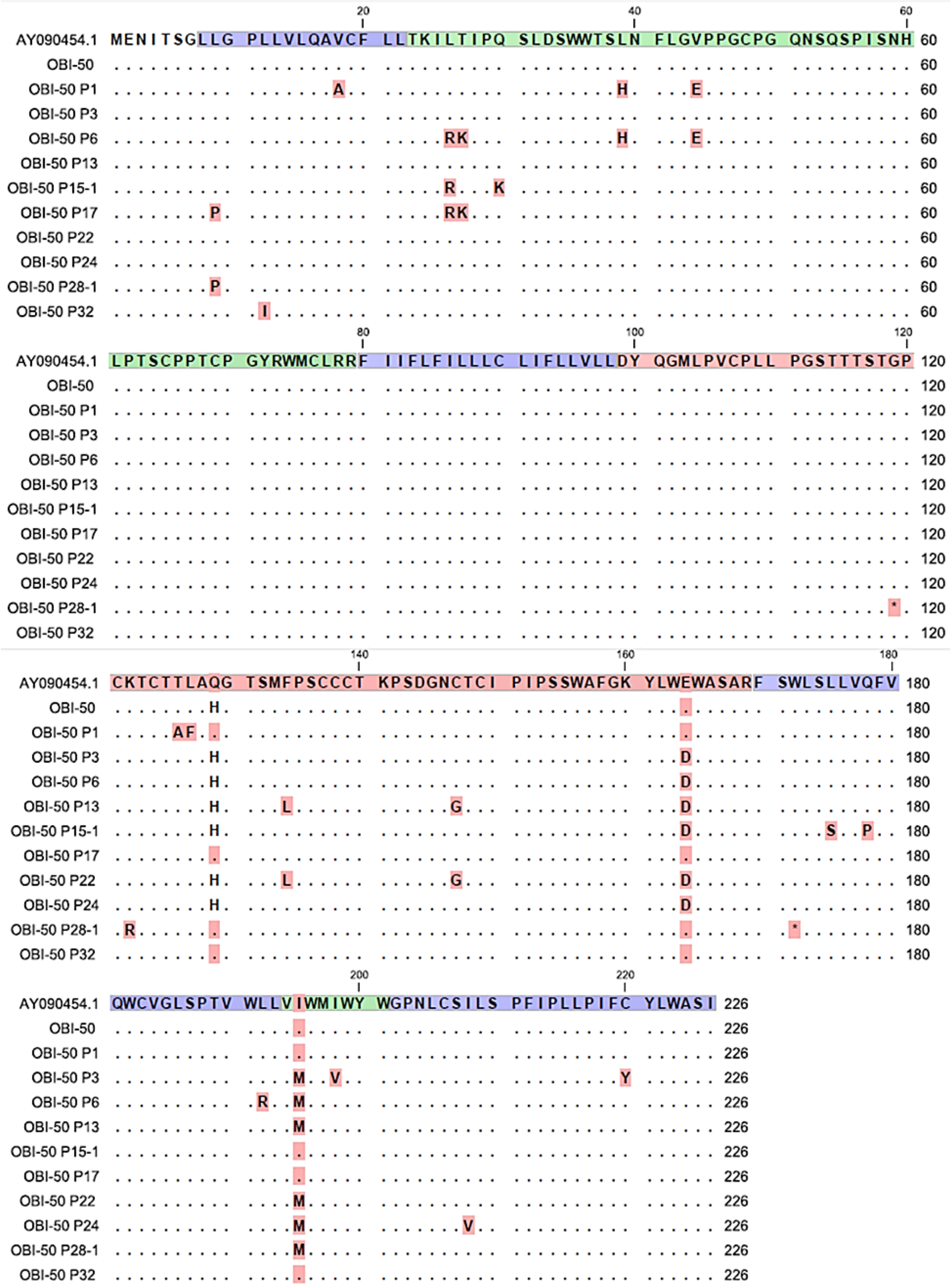
                                      20                            40                            60
                                       |                             |                             |
AY090454.1   MENITSGLLG PLLVLQAVCF LLTKILTIPQ SLDSWWTSLN FLGVPPGCPG QNSQSPISNH 60
OBI-44       .......... ........Y. .......... .......... .......... .......... 60
OBI-44 P8    .......... .......... .......... .......... .......... .......... 60
OBI-44 P11   .......... ........Y. .......... .......... .......... .......... 60
OBI-44 P12   .......... ........Y. .......... .......... .......... .......... 60
OBI-44 P14   .......... ........Y. .......... .......... .......... .......... 60
OBI-44 P17   .......... ........Y. .......... .......... .......... .......... 60
OBI-44 P19   .......... ........Y. .......... .......... .......... .......... 60
OBI-44 P20   .......... .......... .......... .......... .......... .......... 60
OBI-44 P22   .......... .......... .......... .......... .......... .......... 60
OBI-44 P26   .......... ........Y. .......... .......... .......... .......... 60
OBI-44 P30   .......... ........Y. .......... .......... .......... .......... 60
                                      80                           100                           120
                                       |                             |                             |
AY090454.1   LPTSCPPTCP GYRWMCLRRF IIFLFILLLC LIFLLVLLDY QGMLPVCPLL PGSTTTSTGP 120
OBI-44       .......... .......... .......... .......... .......... .......... 120
OBI-44 P8    .......... .......... .......... .......... .......... .......... 120
OBI-44 P11   .......... .......... .......... .......... .......... .......... 120
OBI-44 P12   .......... .......... .......... .......... .......... .......... 120
OBI-44 P14   .......... .......... .......... .......... .......... .......... 120
OBI-44 P17   .......... .......... .......... .......... .......... .......... 120
OBI-44 P19   .......... .......... .......... .......... .......... .......... 120
OBI-44 P20   .......... .......... .......... .......... .......... .......... 120
OBI-44 P22   .......... .......... .......... .......... .......... .......... 120
OBI-44 P26   .......... .......... .......... .......... .......... .......... 120
OBI-44 P30   .......... .......... .......... .......... .......... .......... 120
                                     140                           160                           180
                                       |                             |                             |
AY090454.1   CKTCTTLAQG TSMFPSCCCT KPSDGNCTCI PIPSSWAFGK YLWEWASARF SWLSLLVQFV 180
OBI-44       .......... .......... .......... .......... .......... .......... 180
OBI-44 P8    .......... .......... .......... .......S.. .......... .......... 180
OBI-44 P11   .......... .......... .......... .......... .......... .......... 180
OBI-44 P12   .......... .......... .......... .......... .......... .......... 180
OBI-44 P14   .......... .......... .......... .......... .......... .......... 180
OBI-44 P17   .......... .......... .......... .......... .......... .......... 180
OBI-44 P19   .......... .......... .......... .......... .......... .......... 180
OBI-44 P20   .......... .......... .......... .......S.. .......... .......... 180
OBI-44 P22   .......... ......R... .......... .......... .......... .......... 180
OBI-44 P26   .......... .......... .......... .......... .......... .......... 180
OBI-44 P30   .......... .......... .......... .......... .......... .......... 180
                                     200                           220
                                       |                             |
AY090454.1   QWCVGLSPTV WLLVIWMIWY WGPNLCSILS PFIPLLPIFC YLWASI 226
OBI-44       .......... .......... .......... .......... ...... 226
OBI-44 P8    .......... .......... .......... .......... ...... 226
OBI-44 P11   .......... .......... .......... .......... ...... 226
OBI-44 P12   .......... .......... .......... .......... ...... 226
OBI-44 P14   .......... .......... .......... .......... ...... 226
OBI-44 P17   .......... .......... .......... .......... ...... 226
OBI-44 P19   .......... .......... .......... .......... ...... 226
OBI-44 P20   .......... .......... .......... .......... ...... 226
OBI-44 P22   .......... .......... .......... .......... ...... 226
OBI-44 P26   .......... .......... .......... .......... ...... 226
OBI-44 P30   .......... .......... .......... .......... ...... 226
```

Supplementary Figure 1. Alignment of amino acid sequences deduced from sample clones OBI-44. Residues identical to the genotype H reference consensus are indicated by dots. Mutations in red boxes.

Alignment of amino acid sequences deduced from OBI-50 sample clones



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                                       20                    40                    60
AY090454.1   MENITSGLLG PLLVLQAVCF LLTKILTIPQ SLDSWWTSLN FLGVPPGCPG QNSQSPISNH  60
OBI-50       .......... .......... .......... .......... .......... ..........  60
OBI-50 P1    .......... .......A.. .......... ........H. ...E...... ..........  60
OBI-50 P3    .......... .......... .......... .......... .......... ..........  60
OBI-50 P6    .......... .......... .....RK... ........H. ...E...... ..........  60
OBI-50 P13   .......... .......... .......... .......... .......... ..........  60
OBI-50 P15-1 .......... .......... .....R...K .......... .......... ..........  60
OBI-50 P17   ........P. .......... .....RK... .......... .......... ..........  60
OBI-50 P22   .......... .......... .......... .......... .......... ..........  60
OBI-50 P24   .......... .......... .......... .......... .......... ..........  60
OBI-50 P28-1 ........P. .......... .......... .......... .......... ..........  60
OBI-50 P32   .......... .I........ .......... .......... .......... ..........  60

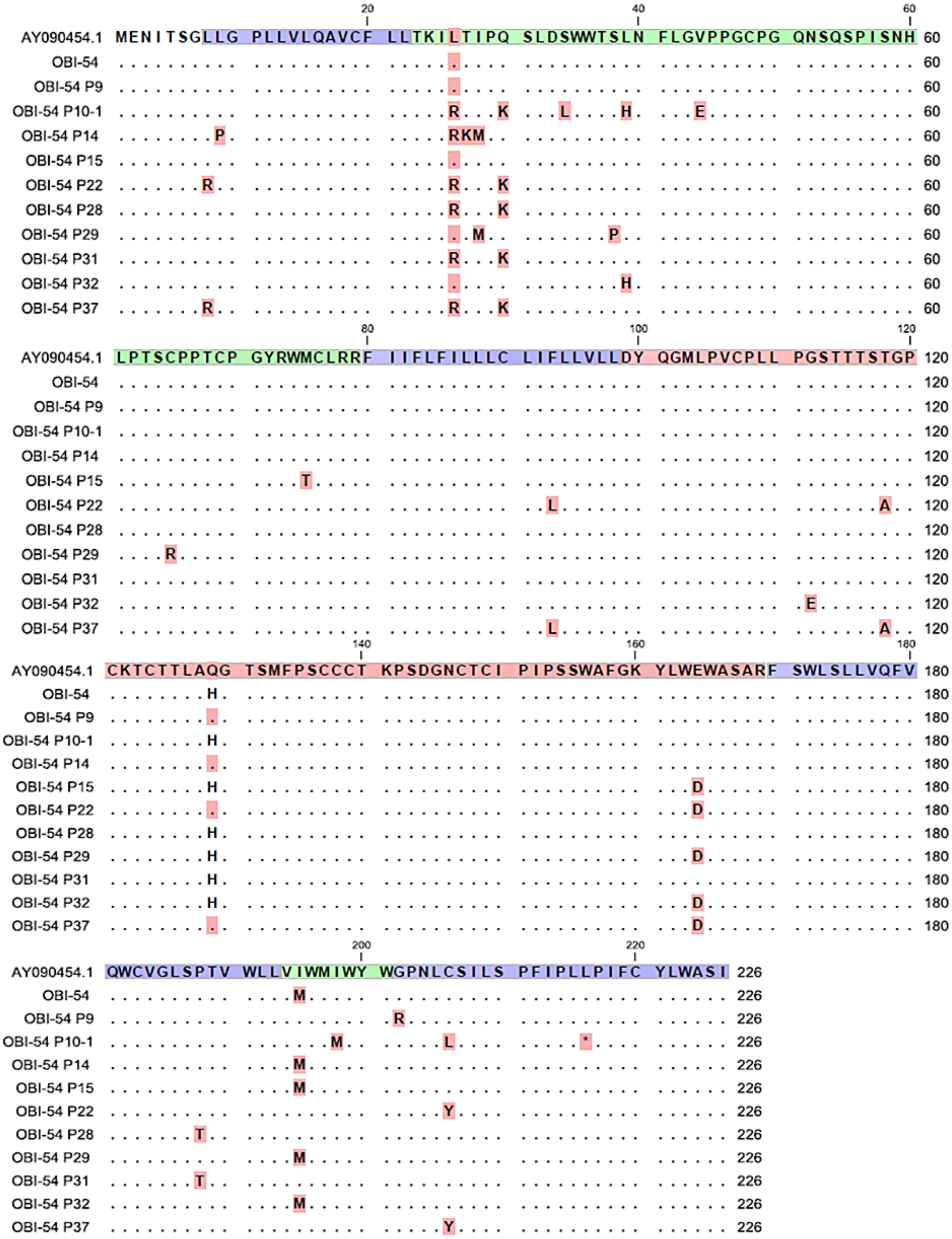
                                       80                   100                   120
AY090454.1   LPTSCPPTCP GYRWMCLRRF IIFLFILLLC LIFLLVLLDY QGMLPVCPLL PGSTTTSTGP 120
OBI-50       .......... .......... .......... .......... .......... .......... 120
OBI-50 P1    .......... .......... .......... .......... .......... .......... 120
OBI-50 P3    .......... .......... .......... .......... .......... .......... 120
OBI-50 P6    .......... .......... .......... .......... .......... .......... 120
OBI-50 P13   .......... .......... .......... .......... .......... .......... 120
OBI-50 P15-1 .......... .......... .......... .......... .......... .......... 120
OBI-50 P17   .......... .......... .......... .......... .......... .......... 120
OBI-50 P22   .......... .......... .......... .......... .......... .......... 120
OBI-50 P24   .......... .......... .......... .......... .......... .......... 120
OBI-50 P28-1 .......... .......... .......... .......... .......... ........*. 120
OBI-50 P32   .......... .......... .......... .......... .......... .......... 120

                                      140                   160                   180
AY090454.1   CKTCTTLAQG TSMFPSCCCT KPSDGNCTCI PIPSSWAFGK YLWEWASARF SWLSLLVQFV 180
OBI-50       ........H. .......... .......... .......... .......... .......... 180
OBI-50 P1    .....AF... .......... .......... .......... .......... .......... 180
OBI-50 P3    ........H. .......... .......... .......... ...D...... .......... 180
OBI-50 P6    ........H. .......... .......... .......... ...D...... .......... 180
OBI-50 P13   ........H. ...L...... ......G... .......... ...D...... .......... 180
OBI-50 P15-1 ........H. .......... .......... .......... ...D...... ....S..P.. 180
OBI-50 P17   .......... .......... .......... .......... ...D...... .......... 180
OBI-50 P22   ........H. ...L...... ......G... .......... ...D...... .......... 180
OBI-50 P24   ........H. .......... .......... .......... ...D...... .......... 180
OBI-50 P28-1 .R........ .......... .......... .......... .......... .*........ 180
OBI-50 P32   .......... .......... .......... .......... .......... .......... 180

                                      200                   220
AY090454.1   QWCVGLSPTV WLLVIWMIWY WGPNLCSILS PFIPLLPIFC YLWASI 226
OBI-50       .......... .......... .......... .......... ...... 226
OBI-50 P1    .......... .......... .......... .......... ...... 226
OBI-50 P3    .......... ....M..V.. .......... .........Y ...... 226
OBI-50 P6    .......... .R..M..... .......... .......... ...... 226
OBI-50 P13   .......... ....M..... .......... .......... ...... 226
OBI-50 P15-1 .......... .......... .......... .......... ...... 226
OBI-50 P17   .......... .......... .......... .......... ...... 226
OBI-50 P22   .......... ....M..... .......... .......... ...... 226
OBI-50 P24   .......... ....M..... .......V.. .......... ...... 226
OBI-50 P28-1 .......... ....M..... .......... .......... ...... 226
OBI-50 P32   .......... .......... .......... .......... ...... 226
```

Supplementary Figure 1. Alignment of amino acid sequences deduced from sample clones OBI-50. Residues identical to the genotype H reference consensus are indicated by dots. Mutations in red boxes.
)

Alignment of amino acid sequences deduced from OBI-54 sample clones



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                                         20                   40                   60
                                          |                    |                    |
AY090454.1    MENITSGLLG PLLVLQAVCF LLTKILTIPQ SLDSWWTSLN FLGVPPGCPG QNSQSPISNH  60
OBI-54        .......... .......... .......... .......... .......... ..........  60
OBI-54 P9     .......... .......... .......... .......... .......... ..........  60
OBI-54 P10-1  .......... .......... .....R...K ...L....H. ...E...... ..........  60
OBI-54 P14    ........P. .......... .....RKM.. .......... .......... ..........  60
OBI-54 P15    .......... .......... .......... .......... .......... ..........  60
OBI-54 P22    .......R.. .......... .....R...K .......... .......... ..........  60
OBI-54 P28    .......... .......... .....R...K .......... .......... ..........  60
OBI-54 P29    .......... .......... .......M.. .......P.. .......... ..........  60
OBI-54 P31    .......... .......... .....R...K .......... .......... ..........  60
OBI-54 P32    .......... .......... .......... ........H. .......... ..........  60
OBI-54 P37    .......R.. .......... .....R...K .......... .......... ..........  60
                                         80                  100                  120
                                          |                    |                    |
AY090454.1    LPTSCPPTCP GYRWMCLRRF IIFLFILLLC LIFLLVLLDY QGMLPVCPLL PGSTTTSTGP 120
OBI-54        .......... .......... .......... .......... .......... .......... 120
OBI-54 P9     .......... .......... .......... .......... .......... .......... 120
OBI-54 P10-1  .......... .......... .......... .......... .......... .......... 120
OBI-54 P14    .......... .......... .......... .......... .......... .......... 120
OBI-54 P15    .......... ....T..... .......... .......... .......... .......... 120
OBI-54 P22    .......... .......... .......... ..L....... .......... .......A.. 120
OBI-54 P28    .......... .......... .......... .......... .......... .......... 120
OBI-54 P29    ....R..... .......... .......... .......... .......... .......... 120
OBI-54 P31    .......... .......... .......... .......... .......... .......... 120
OBI-54 P32    .......... .......... .......... .......... .......... .E........ 120
OBI-54 P37    .......... .......... .......... ..L....... .......... .......A.. 120
                                        140                  160                  180
                                          |                    |                    |
AY090454.1    CKTCTTLAQG TSMFPSCCCT KPSDGNCTCI PIPSSWAFGK YLWEWASARF SWLSLLVQFV 180
OBI-54        ........H. .......... .......... .......... .......... .......... 180
OBI-54 P9     .......... .......... .......... .......... .......... .......... 180
OBI-54 P10-1  ........H. .......... .......... .......... .......... .......... 180
OBI-54 P14    .......... .......... .......... .......... .......... .......... 180
OBI-54 P15    ........H. .......... .......... .......... ...D...... .......... 180
OBI-54 P22    .......... .......... .......... .......... ...D...... .......... 180
OBI-54 P28    ........H. .......... .......... .......... .......... .......... 180
OBI-54 P29    ........H. .......... .......... .......... ...D...... .......... 180
OBI-54 P31    ........H. .......... .......... .......... .......... .......... 180
OBI-54 P32    ........H. .......... .......... .......... ...D...... .......... 180
OBI-54 P37    .......... .......... .......... .......... ...D...... .......... 180
                                        200                  220
                                          |                    |
AY090454.1    QWCVGLSPTV WLLVIWMIWY WGPNLCSILS PFIPLLPIFC YLWASI 226
OBI-54        .......... ....M..... .......... .......... ...... 226
OBI-54 P9     .......... .......... .R........ .......... ...... 226
OBI-54 P10-1  .......... .......M.. .....L.... .....*.... ...... 226
OBI-54 P14    .......... ....M..... .......... .......... ...... 226
OBI-54 P15    .......... ....M..... .......... .......... ...... 226
OBI-54 P22    .......... .......... .....Y.... .......... ...... 226
OBI-54 P28    .......T.. .......... .......... .......... ...... 226
OBI-54 P29    .......... ....M..... .......... .......... ...... 226
OBI-54 P31    .......T.. .......... .......... .......... ...... 226
OBI-54 P32    .......... ....M..... .......... .......... ...... 226
OBI-54 P37    .......... .......... .....Y.... .......... ...... 226
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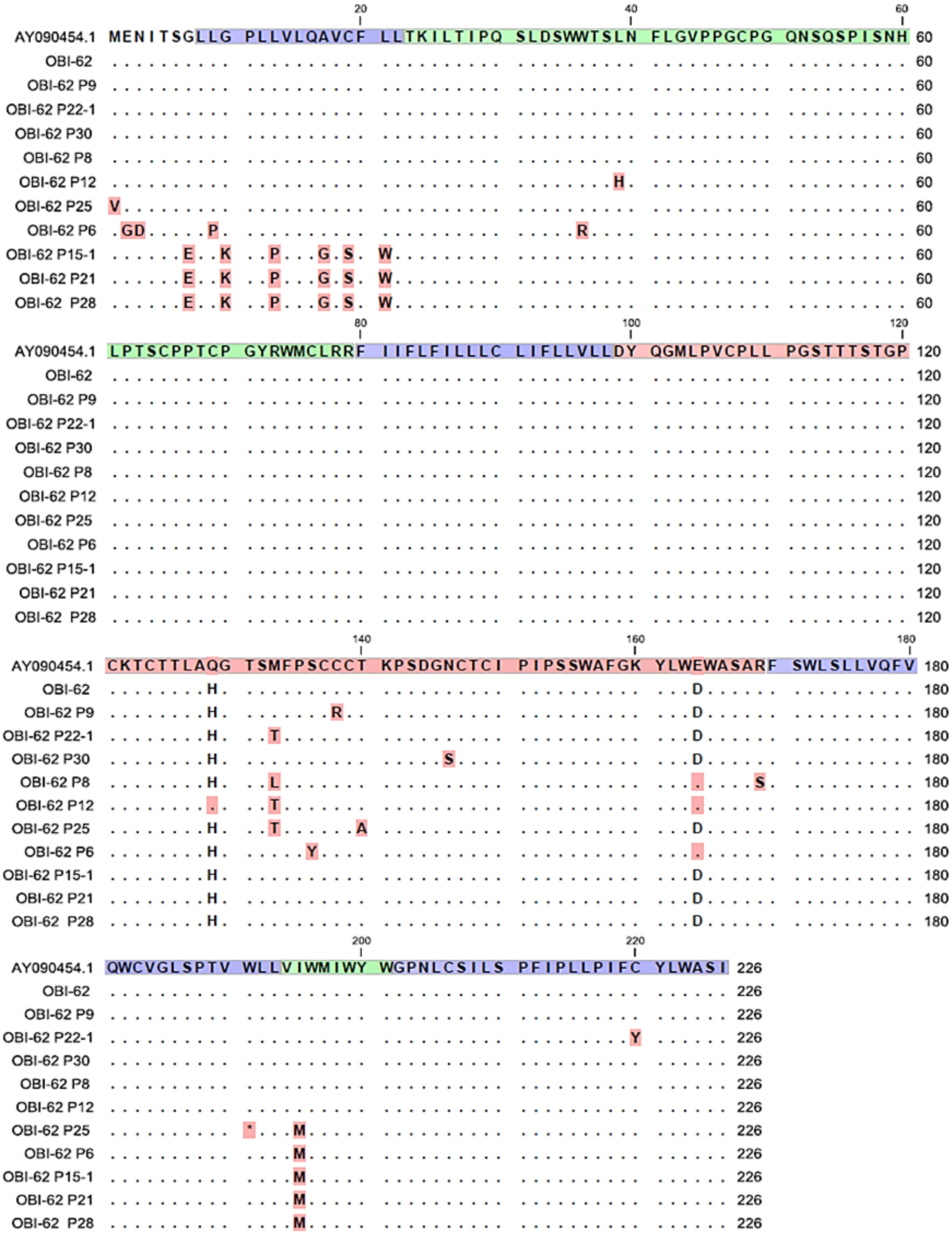
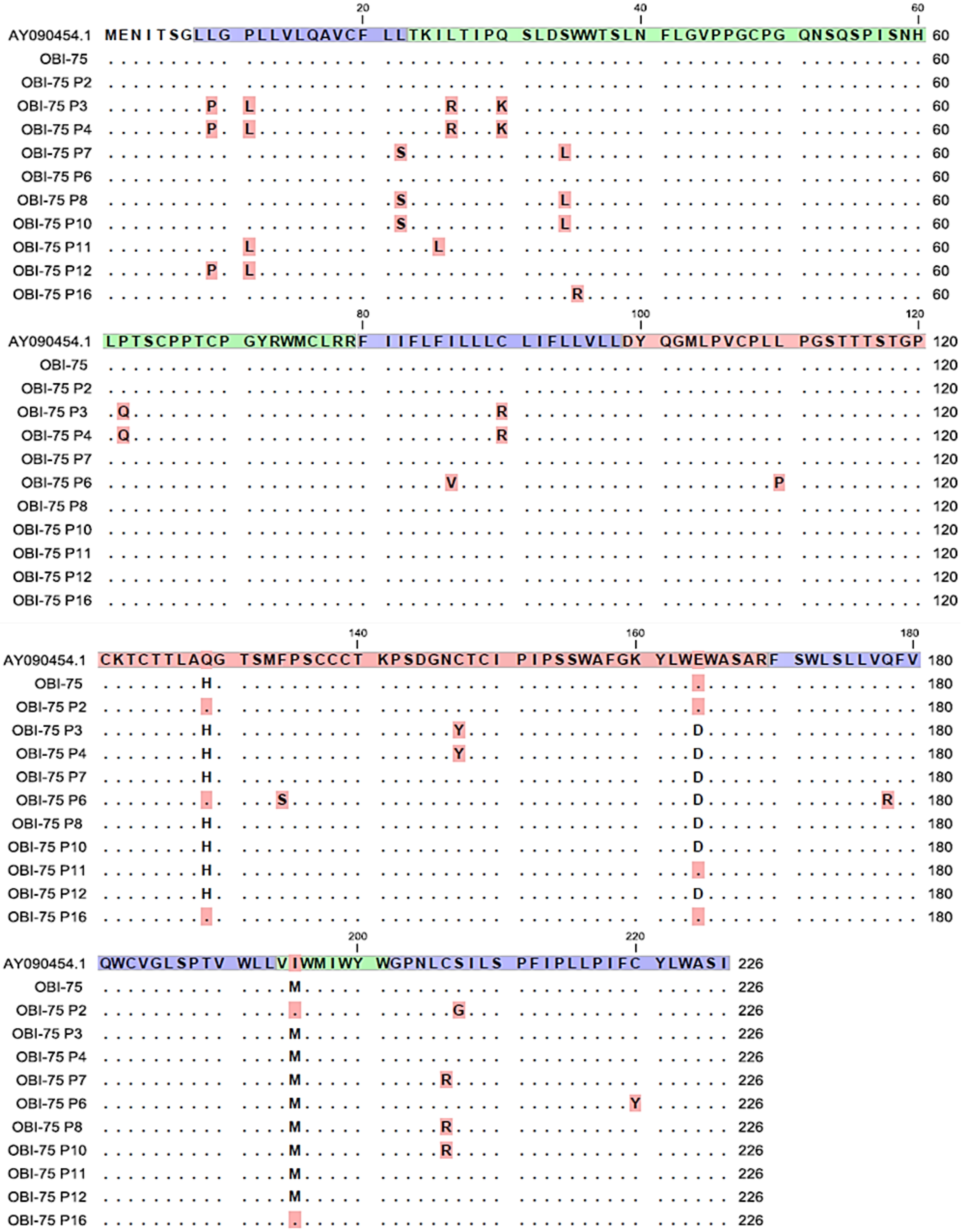
Supplementary Figure 1. Alignment of amino acid sequences deduced from sample clones OBI-54. Residues identical to the genotype H reference consensus are indicated by dots. Mutations in red boxes.

Alignment of amino acid sequences deduced from OBI-62 sample clones



Supplementary Figure 1. Alignment of amino acid sequences deduced from sample clones OBI-62. Residues identical to the genotype H reference consensus are indicated by dots. Mutations in red boxes.

Alignment of amino acid sequences deduced from OBI-75 sample clones



```
                                        20                              40                              60
                                         |                               |                               |
AY090454.1   MENITSGLLG PLLVLQAVCF LLTKILTIPQ SLDSWWTSLN FLGVPPGCPG QNSQSPISNH 60
OBI-75       .......... .......... .......... .......... .......... .......... 60
OBI-75 P2    .......... .......... .......... .......... .......... .......... 60
OBI-75 P3    ........P. L......... .....R...K .......... .......... .......... 60
OBI-75 P4    ........P. L......... .....R...K .......... .......... .......... 60
OBI-75 P7    .......... .......... .S........ ...L...... .......... .......... 60
OBI-75 P6    .......... .......... .......... .......... .......... .......... 60
OBI-75 P8    .......... .......... .S........ ...L...... .......... .......... 60
OBI-75 P10   .......... .......... .S........ ...L...... .......... .......... 60
OBI-75 P11   .......... L......... ....L..... .......... .......... .......... 60
OBI-75 P12   ........P. L......... .......... .......... .......... .......... 60
OBI-75 P16   .......... .......... .......... ....R..... .......... .......... 60
                                        80                             100                             120
                                         |                               |                               |
AY090454.1   LPTSCPPTCP GYRWMCLRRF IIFLFILLLC LIFLLVLLDY QGMLPVCPLL PGSTTTSTGP 120
OBI-75       .......... .......... .......... .......... .......... .......... 120
OBI-75 P2    .......... .......... .......... .......... .......... .......... 120
OBI-75 P3    .Q........ .......... .........R .......... .......... .......... 120
OBI-75 P4    .Q........ .......... .........R .......... .......... .......... 120
OBI-75 P7    .......... .......... .......... .......... .......... .......... 120
OBI-75 P6    .......... .......... .....V.... .......... .........P .......... 120
OBI-75 P8    .......... .......... .......... .......... .......... .......... 120
OBI-75 P10   .......... .......... .......... .......... .......... .......... 120
OBI-75 P11   .......... .......... .......... .......... .......... .......... 120
OBI-75 P12   .......... .......... .......... .......... .......... .......... 120
OBI-75 P16   .......... .......... .......... .......... .......... .......... 120
                                       140                             160                             180
                                         |                               |                               |
AY090454.1   CKTCTTLAQG TSMFPSCCCT KPSDGNCTCI PIPSSWAFGK YLWEWASARF SWLSLLVQFV 180
OBI-75       ........H. .......... .......... .......... .......... .......... 180
OBI-75 P2    .......... .......... .......... .......... .......... .......... 180
OBI-75 P3    ........H. .......... ......Y... .......... ...D...... .......... 180
OBI-75 P4    ........H. .......... ......Y... .......... ...D...... .......... 180
OBI-75 P7    ........H. .......... .......... .......... ...D...... .......... 180
OBI-75 P6    .......... ...S...... .......... .......... ...D...... .......R.. 180
OBI-75 P8    ........H. .......... .......... .......... ...D...... .......... 180
OBI-75 P10   ........H. .......... .......... .......... ...D...... .......... 180
OBI-75 P11   ........H. .......... .......... .......... .......... .......... 180
OBI-75 P12   ........H. .......... .......... .......... ...D...... .......... 180
OBI-75 P16   .......... .......... .......... .......... .......... .......... 180
                                       200                             220
                                         |                               |
AY090454.1   QWCVGLSPTV WLLVIWMIWY WGPNLCSILS PFIPLLPIFC YLWASI 226
OBI-75       .......... ....M..... .......... .......... ...... 226
OBI-75 P2    .......... .......... ......G... .......... ...... 226
OBI-75 P3    .......... ....M..... .......... .......... ...... 226
OBI-75 P4    .......... ....M..... .......... .......... ...... 226
OBI-75 P7    .......... ....M..... .....R.... .......... ...... 226
OBI-75 P6    .......... ....M..... .......... .........Y ...... 226
OBI-75 P8    .......... ....M..... .....R.... .......... ...... 226
OBI-75 P10   .......... ....M..... .....R.... .......... ...... 226
OBI-75 P11   .......... ....M..... .......... .......... ...... 226
OBI-75 P12   .......... ....M..... .......... .......... ...... 226
OBI-75 P16   .......... .......... .......... .......... ...... 226
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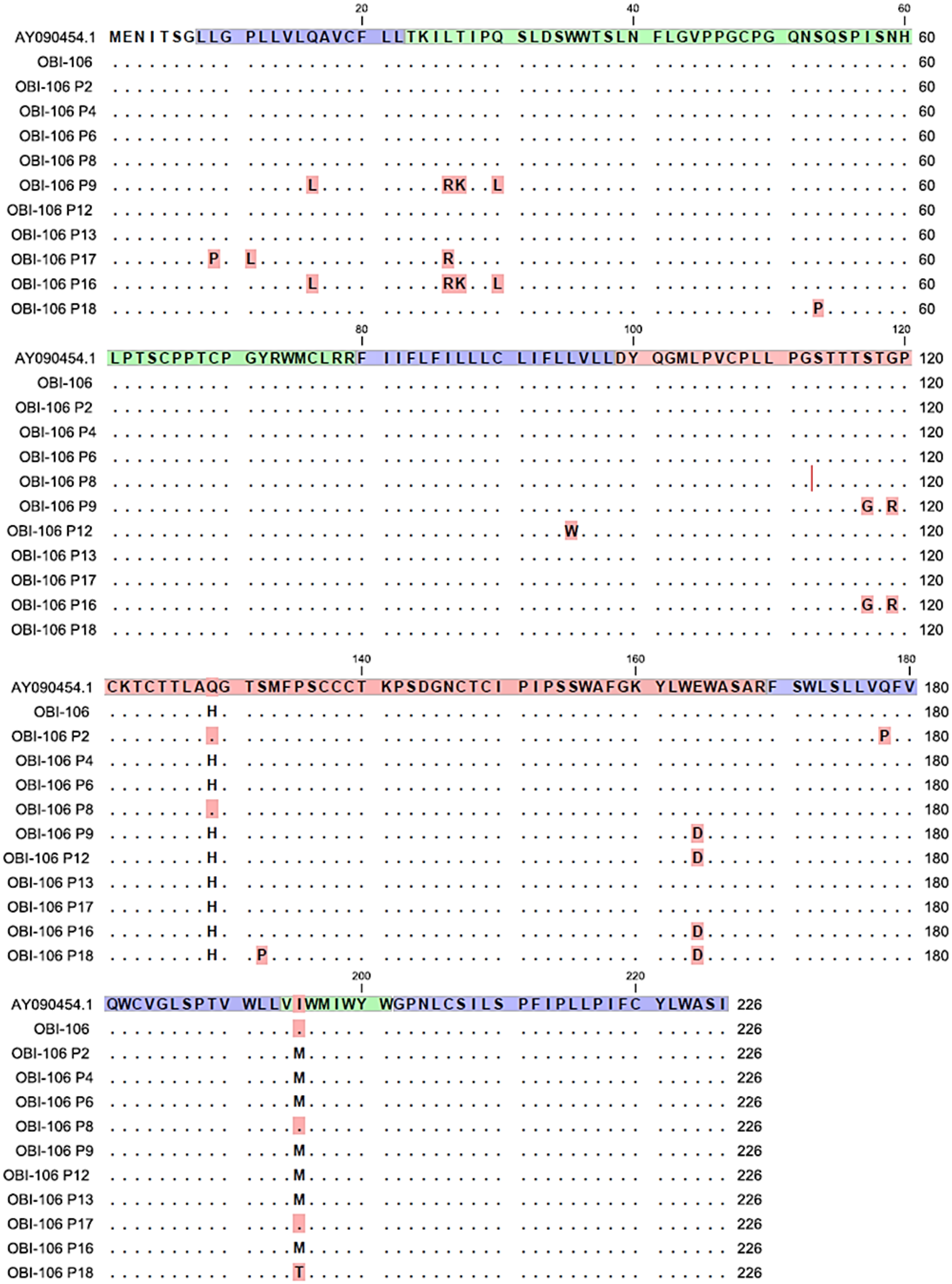
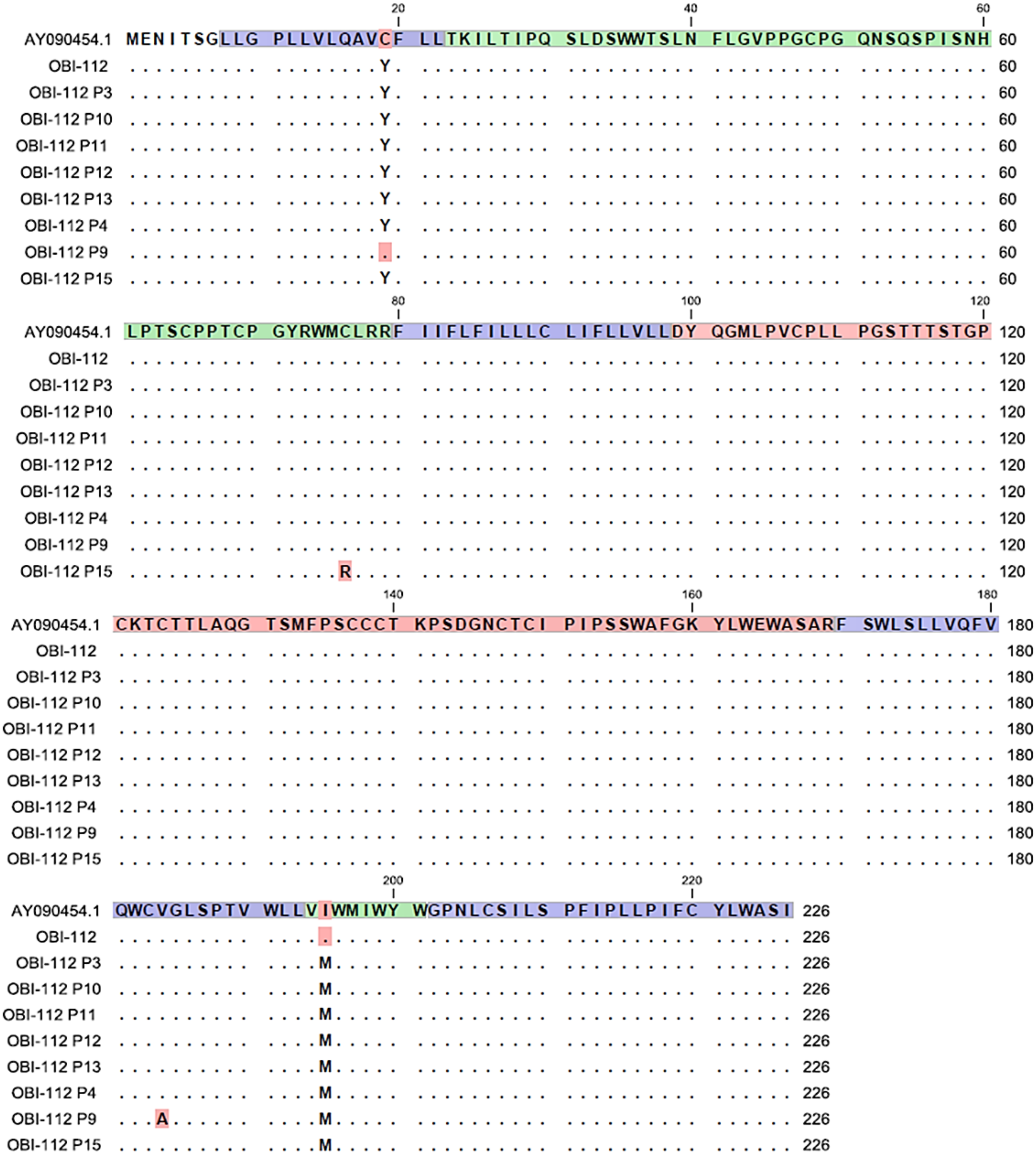
Supplementary Figure 1. Alignment of amino acid sequences deduced from sample clones OBI-75. Residues identical to the genotype H reference consensus are indicated by dots. Mutations in red boxes.

Alignment of amino acid sequences deduced from OBI-106 sample clones



Supplementary Figure 1. Alignment of amino acid sequences deduced from sample clones OBI-106. Residues identical to the genotype H reference consensus are indicated by dots. Mutations in red boxes.

Alignment of amino acid sequences deduced from OBI-112 sample clones



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                              20                                  40                                  60
AY090454.1   MENITSGLLG PLLVLQAVCF LLTKILTIPQ SLDSWWTSLN FLGVPPGCPG QNSQSPISNH  60
OBI-112      .......... ........Y. .......... .......... .......... ..........  60
OBI-112 P3   .......... ........Y. .......... .......... .......... ..........  60
OBI-112 P10  .......... ........Y. .......... .......... .......... ..........  60
OBI-112 P11  .......... ........Y. .......... .......... .......... ..........  60
OBI-112 P12  .......... ........Y. .......... .......... .......... ..........  60
OBI-112 P13  .......... ........Y. .......... .......... .......... ..........  60
OBI-112 P4   .......... ........Y. .......... .......... .......... ..........  60
OBI-112 P9   .......... .......... .......... .......... .......... ..........  60
OBI-112 P15  .......... ........Y. .......... .......... .......... ..........  60
                              80                                 100                                 120
AY090454.1   LPTSCPPTCP GYRWMCLRRF IIFLFILLLC LIFLLVLLDY QGMLPVCPLL PGSTTTSTGP 120
OBI-112      .......... .......... .......... .......... .......... .......... 120
OBI-112 P3   .......... .......... .......... .......... .......... .......... 120
OBI-112 P10  .......... .......... .......... .......... .......... .......... 120
OBI-112 P11  .......... .......... .......... .......... .......... .......... 120
OBI-112 P12  .......... .......... .......... .......... .......... .......... 120
OBI-112 P13  .......... .......... .......... .......... .......... .......... 120
OBI-112 P4   .......... .......... .......... .......... .......... .......... 120
OBI-112 P9   .......... .......... .......... .......... .......... .......... 120
OBI-112 P15  .......... .....R.... .......... .......... .......... .......... 120
                             140                                 160                                 180
AY090454.1   CKTCTTLAQG TSMFPSCCCT KPSDGNCTCI PIPSSWAFGK YLWEWASARF SWLSLLVQFV 180
OBI-112      .......... .......... .......... .......... .......... .......... 180
OBI-112 P3   .......... .......... .......... .......... .......... .......... 180
OBI-112 P10  .......... .......... .......... .......... .......... .......... 180
OBI-112 P11  .......... .......... .......... .......... .......... .......... 180
OBI-112 P12  .......... .......... .......... .......... .......... .......... 180
OBI-112 P13  .......... .......... .......... .......... .......... .......... 180
OBI-112 P4   .......... .......... .......... .......... .......... .......... 180
OBI-112 P9   .......... .......... .......... .......... .......... .......... 180
OBI-112 P15  .......... .......... .......... .......... .......... .......... 180
                             200                                 220
AY090454.1   QWCVGLSPTV WLLVIWMIWY WGPNLCSILS PFIPLLPIFC YLWASI 226
OBI-112      .......... .......... .......... .......... ...... 226
OBI-112 P3   .......... ....M..... .......... .......... ...... 226
OBI-112 P10  .......... ....M..... .......... .......... ...... 226
OBI-112 P11  .......... ....M..... .......... .......... ...... 226
OBI-112 P12  .......... ....M..... .......... .......... ...... 226
OBI-112 P13  .......... ....M..... .......... .......... ...... 226
OBI-112 P4   .......... ....M..... .......... .......... ...... 226
OBI-112 P9   ...A...... ....M..... .......... .......... ...... 226
OBI-112 P15  .......... ....M..... .......... .......... ...... 226
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Supplementary Figure 1. Alignment of amino acid sequences deduced from sample clones OBI-112. Residues identical to the genotype H reference consensus are indicated by dots. Mutations in red boxes.