

Additional file 9 - Mafft (v6.857b) alignment for C7A8A2 and Q17185. C7A8A2 is identical to LP1 (P09334) except for the presence of N instead of K in position 114 (marked in blue) and was therefore removed from the considerations discussed in the main text.

```
tr|C7A8A2| MRLTLFAFVLAVCALASNATLAPRTDDVLAEQLYMSVVIGEYETAIACSEYLKEKKGEV
tr|Q17185| MRLTLFAFVLAVCALASNATLAPRTDDVLAEQLYMSVVIGEYETAIACSEYLKEKKGEV
```

```
tr|C7A8A2| IKEAVKRLIENGKRNTMDFAYQLWTKDGKEIVKSYFPIQFRVIFTEQTVKLINNRDHHAL
tr|Q17185| IKEAVKRLIENGKRNTMDFAYQLWTKDGKEIVKSYFPIQFRVIFTEQTVKLINKRDHHAL
```

```
tr|C7A8A2| KLIDQQNHNKIAFGDSKDKTSKKVSWKFTPVLNNRVYFKIMSTEDKQYLKLDNTKGSSD
tr|Q17185| KLIDQQNHNKIAFGGSKDKTSKKVSWKFTPVLNNRVYFKIMSTEDKQYLKLDNTKGSSD
```

```
tr|C7A8A2| DRIIYGDSTADTFKHHWYLEPSMYESDVMFFVYNREYNSVMTLDEDMAANEDREALGHSG
tr|Q17185| DRIIYGDSTADTFKHQWYLEPSMYESDVMFFVYNREYNSVMTLDEDMAANEDREALGHSG
```

```
tr|C7A8A2| EVSGYPQLFAWYIVPY
tr|Q17185| EVSGYPQLFAWYIVPY
```