

Electronic Supplementary Material

Phylogenetic analysis based on mitochondrial DNA sequences of wild rats, and the relationship with Seoul virus infection in Hubei, China

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Table S1. GenBank number for each haplotype of mtDNA D-loop or *cyt-b*

| Haplotype | GenBank number |
|-----------|----------------|
| D1 | MF062462 |
| D2 | MF062463 |
| D3 | MF062464 |
| D4 | KY356160 |
| D5 | KY356153 |
| D6 | KY356169 |
| D7 | KY356186 |
| D8 | KY356167 |
| D9 | KY356190 |
| D10 | KY356179 |
| D11 | KY356181 |
| D12 | KY356185 |
| D13 | HQ655894 |
| D14 | KY356156 |
| D15 | KY356174 |
| D16 | HQ655911 |
| D17 | KY356184 |
| D18 | KY356172 |
| B1 | KY356138 |
| B2 | KY356105 |
| B3 | MF062465 |
| B4 | KY356126 |
| B5 | KY356102 |
| B6 | KY356113 |
| B7 | KY356116 |
| B8 | KY356139 |
| B9 | KY356144 |
| B10 | KY356135 |
| B11 | KY356108 |
| B12 | KY356115 |
| B13 | KY356124 |
| B14 | KY356129 |
| B15 | KY356130 |
| B16 | KY356136 |
| B17 | KY356142 |
| B18 | KY356122 |

Table S2. The geographic origin, haplotype and length of reference sequences from GenBank

| Species | Continent | Country | Sample location (if known) | Strain or ID | Gene | Haplotype | Sequence length (bp) | GenBank No. |
|--------------------------|-----------|---------|----------------------------|----------------|--------|-----------|----------------------|-------------|
| <i>Rattus norvegicus</i> | Europe | France | – | 83 | D-loop | D1 | 499 | JX887169 |
| <i>Rattus norvegicus</i> | – | – | – | Wild/Mcwi | D-loop | D1 | 898 | DQ673916 |
| <i>Rattus norvegicus</i> | Europe | France | – | 17 | D-loop | D2 | 664 | JX887165 |
| <i>Rattus norvegicus</i> | Europe | Germany | Ludwigshafen | 3999 | D-loop | D3 | 664 | JX887170 |
| <i>Rattus norvegicus</i> | – | – | – | T2DN/Mcwi | D-loop | D3 | 899 | DQ673915 |
| <i>Rattus norvegicus</i> | Europe | Germany | Drensteinfurt | 3748 | D-loop | D4 | 664 | JX887166 |
| <i>Rattus norvegicus</i> | Asia | Japan | – | Japan/Tku | D-loop | D5 | 664 | DQ673917 |
| <i>Rattus norvegicus</i> | Europe | Germany | Velen | 3273 | D-loop | D6 | 664 | JX887167 |
| <i>Rattus norvegicus</i> | Europe | Germany | Magdeburg | 3234 | D-loop | D7 | 654 | JX887171 |
| <i>Rattus norvegicus</i> | Europe | Germany | Dorsten | 3599 | D-loop | D8 | 664 | JX887173 |
| <i>Rattus norvegicus</i> | Europe | Germany | Drensteinfurt | 3493 | D-loop | D9 | 664 | JX887174 |
| <i>Rattus norvegicus</i> | Europe | France | – | 111 | D-loop | D10 | 499 | JX887172 |
| <i>Rattus norvegicus</i> | Europe | Denmark | Copenhagen | – | D-loop | D12 | 664 | AJ428514 |
| <i>Rattus norvegicus</i> | Asia | Vietnam | – | specimen 947 | D-loop | D13 | 300 | U13748 |
| <i>Rattus norvegicus</i> | Asia | China | Hainan | DS05 | D-loop | D14 | 469 | HM031630 |
| <i>Rattus norvegicus</i> | – | – | – | GH/OmrMcwi | D-loop | D23 | 664 | DQ673911 |
| <i>Rattus norvegicus</i> | – | – | – | GK/Far | D-loop | D24 | 664 | DQ673912 |
| <i>Rattus norvegicus</i> | – | – | – | WKY/NCrl | D-loop | D25 | 664 | DQ673907 |
| <i>Rattus norvegicus</i> | – | – | – | BN/SsNHsdMCW | D-loop | – | 898 | NC_001665 |
| <i>Rattus norvegicus</i> | – | – | – | Sprague/Dawley | D-loop | – | 897 | X04734 |
| <i>Rattus norvegicus</i> | – | – | – | Wistar | D-loop | – | 899 | X52757 |
| <i>Rattus nitidus</i> | Asia | China | Sichuan | – | D-loop | – | 897 | KX058347 |
| <i>Rattus rattus</i> | – | – | – | RNZRrTit01 | D-loop | – | 898 | EU273707 |

To be continued

| Species | Continent | Country | Sample location (if known) | Strain or ID | Gene | Haplotype | Sequence length (bp) | GenBank No. |
|--------------------------|-----------|---------|-------------------------------|--------------|--------------|-----------|-------------------------|----------------|
| <i>Rattus rattus</i> | – | – | – | M.D. | D-loop | – | 898 | X04735 |
| <i>Rattus tanezumi</i> | – | – | – | RJPNA02 | D-loop | – | 901 | EU273712 |
| <i>Microtus Kikuchii</i> | – | – | – | – | D-loop | – | 922 | NC003041 |
| <i>Rattus norvegicus</i> | Europe | France | – | 17 | <i>cyt-b</i> | C1 | 549 | JX887163 |
| <i>Rattus norvegicus</i> | Europe | Germany | Ludwigshafen | 3999 | <i>cyt-b</i> | C2 | 549 | JX887164 |
| <i>Rattus norvegicus</i> | Europe | Germany | Olfen | 3862 | <i>cyt-b</i> | C3 | 549 | JX887161 |
| <i>Rattus norvegicus</i> | Europe | France | – | 91 | <i>cyt-b</i> | C4 | 549 | JX887160 |
| <i>Rattus norvegicus</i> | Europe | France | – | 83 | <i>cyt-b</i> | C5 | 549 | JX887162 |
| <i>Rattus norvegicus</i> | Europe | Denmark | – | Denmark | <i>cyt-b</i> | C6 | 549 | AJ428514 |
| <i>Rattus norvegicus</i> | Asia | Japan | – | – | <i>cyt-b</i> | C7 | 549 | DQ673917 |
| <i>Rattus norvegicus</i> | Asia | China | Hainan | – | <i>cyt-b</i> | C8 | 549 | HM031679 |
| <i>Rattus norvegicus</i> | Asia | China | Hainan | – | <i>cyt-b</i> | C9 | 549 | HM031682 |
| <i>Rattus norvegicus</i> | Asia | China | Inner Mongolia | – | <i>cyt-b</i> | C10 | 549 | GU592954 |
| <i>Rattus norvegicus</i> | Asia | China | Hebei | – | <i>cyt-b</i> | C11 | 549 | GU592956 |
| <i>Rattus norvegicus</i> | Asia | China | Guangdong | – | <i>cyt-b</i> | C12 | 549 | GU592960 |
| <i>Rattus norvegicus</i> | Asia | China | Guangdong | – | <i>cyt-b</i> | C13 | 549 | GU592961 |
| <i>Rattus norvegicus</i> | Asia | China | Hebei | – | <i>cyt-b</i> | C14 | 549 | GU592963 |
| <i>Rattus norvegicus</i> | Asia | China | Heilongjiang | – | <i>cyt-b</i> | C15 | 549 | GU592964 |
| <i>Rattus norvegicus</i> | Asia | China | Henan | – | <i>cyt-b</i> | C16 | 549 | GU592966 |
| <i>Rattus norvegicus</i> | Asia | China | Hebei | – | <i>cyt-b</i> | C17 | 549 | GU592962 |
| <i>Rattus norvegicus</i> | Asia | China | Liaoning | – | <i>cyt-b</i> | C18 | 549 | GU592970 |
| <i>Rattus norvegicus</i> | Asia | China | Hunan | – | <i>cyt-b</i> | C19 | 549 | GU592974 |
| <i>Rattus norvegicus</i> | Asia | China | Jiangsu | – | <i>cyt-b</i> | C20 | 549 | GU592975 |

To be continued

| Species | Continent | Country | Sample location (if known) | Strain or ID | Gene | Haplotype | Sequence length (bp) | GenBank No. |
|--------------------------|-----------|--------------|-------------------------------|--------------|--------------|-----------|-------------------------|----------------|
| <i>Rattus norvegicus</i> | Asia | China | Jilin | – | <i>cyt-b</i> | C21 | 549 | GU592979 |
| <i>Rattus norvegicus</i> | Asia | China | Jilin | – | <i>cyt-b</i> | C22 | 549 | GU592980 |
| <i>Rattus norvegicus</i> | Asia | China | Jilin | – | <i>cyt-b</i> | C23 | 549 | GU592981 |
| <i>Rattus norvegicus</i> | Asia | China | Shandong | – | <i>cyt-b</i> | C24 | 549 | GU592982 |
| <i>Rattus norvegicus</i> | Asia | China | Fujian | – | <i>cyt-b</i> | C25 | 549 | GU592983 |
| <i>Rattus norvegicus</i> | Asia | China | Liaoning | – | <i>cyt-b</i> | C26 | 549 | GU592988 |
| <i>Rattus norvegicus</i> | Asia | China | Hubei | – | <i>cyt-b</i> | C27 | 549 | GU592991 |
| <i>Rattus norvegicus</i> | Asia | China | Inner Mongolia | – | <i>cyt-b</i> | C28 | 549 | GU592993 |
| <i>Rattus norvegicus</i> | Asia | China | Inner Mongolia | – | <i>cyt-b</i> | C29 | 549 | GU592994 |
| <i>Rattus norvegicus</i> | Asia | China | Yunnan | – | <i>cyt-b</i> | C30 | 549 | GU592997 |
| <i>Rattus norvegicus</i> | Asia | Vietnam | – | – | <i>cyt-b</i> | C31 | 549 | AB355903 |
| <i>Rattus norvegicus</i> | Asia | Vietnam | – | – | <i>cyt-b</i> | C32 | 549 | FJ842277 |
| <i>Rattus norvegicus</i> | Asia | Vietnam | – | – | <i>cyt-b</i> | C33 | 549 | FJ842278 |
| <i>Rattus norvegicus</i> | Asia | Vietnam | – | – | <i>cyt-b</i> | C34 | 549 | FR775887 |
| <i>Rattus norvegicus</i> | Asia | Thailand | – | – | <i>cyt-b</i> | C35 | 549 | HM217429 |
| <i>Rattus norvegicus</i> | Asia | Indonesia | – | – | <i>cyt-b</i> | C36 | 549 | FJ842279 |
| <i>Rattus norvegicus</i> | Africa | South Africa | – | – | <i>cyt-b</i> | C37 | 549 | FJ842274 |
| <i>Rattus norvegicus</i> | Africa | South Africa | – | – | <i>cyt-b</i> | C38 | 549 | DQ439839 |
| <i>Rattus norvegicus</i> | – | – | – | WKY/NCrl | <i>cyt-b</i> | C39 | 549 | DQ673907 |
| <i>Rattus nitidus</i> | Asia | China | Zhejiang | YongjiaRn40 | <i>cyt-b</i> | – | 1140 | GU592990 |
| <i>Rattus nitidus</i> | Asia | China | Zhejiang | YongjiaRn14 | <i>cyt-b</i> | – | 1140 | GU592995 |
| <i>Rattus nitidus</i> | Asia | China | Zhejiang | YongjiaRn56 | <i>cyt-b</i> | – | 1140 | GU592965 |
| <i>Rattus nitidus</i> | Asia | China | Hunan | NYA039 | <i>cyt-b</i> | – | 1140 | GU592985 |

To be continued

| Species | Continent | Country | Sample location (if known) | Strain or ID | Gene | Haplotype | Sequence length (bp) | GenBank No. |
|--------------------------|-----------|--------------|-------------------------------|----------------------|--------------|-----------|-------------------------|----------------|
| <i>Rattus nitidus</i> | Asia | China | Tibet | R120516 | <i>cyt-b</i> | – | 1143 | KC735129 |
| <i>Rattus nitidus</i> | Asia | China | – | – | <i>cyt-b</i> | – | 1140 | KX058347 |
| <i>Rattus nitidus</i> | Asia | India | Mao | CAUII344 | <i>cyt-b</i> | – | 1140 | AB973108 |
| <i>Rattus nitidus</i> | Asia | India | Ukhrul | CAUII2012 | <i>cyt-b</i> | – | 1140 | AB973109 |
| <i>Rattus nitidus</i> | Asia | Viet Nam | Dak Lak pr. Eawy | D29 | <i>cyt-b</i> | – | 1140 | FR775883 |
| <i>Rattus nitidus</i> | Asia | Viet Nam | Gia Lai pr, Pleiku | Z40 | <i>cyt-b</i> | – | 1140 | FR775884 |
| <i>Rattus tanezumi</i> | – | – | – | RJPNAAna02 9Oct06 | <i>cyt-b</i> | – | 1140 | EU273712 |
| <i>Rattus rattus</i> | Africa | South Africa | – | ARC101 | <i>cyt-b</i> | – | 1140 | DQ439830 |
| <i>Rattus rattus</i> | – | – | – | RNZRrTit01 | <i>cyt-b</i> | – | 1140 | EU273707 |
| <i>Microtus kukuchii</i> | – | – | – | – | <i>cyt-b</i> | – | 1143 | AF348082 |