**Supplemental Table 1.Background information of glycoprotein (G) sequences of the rabies virus strains in this study.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Clade/isolate** | **Genbank****Accession no.**  | **Source** | **Country** | **Year of isolation** |
| China-1 | DQ849049 | Dog | China | 2004 |
|  | EU275241 | Dog |  | 2007 |
|  | GU186392 | Dog |  | 2008 |
|  | GQ857462 | Dog |  | 2009 |
|  | DQ849047 | Dog |  | 2004 |
|  | HQ450385 | Dog |  | 2008 |
|  | EU275240 | Dog |  | 2007 |
|  | JQ699232 | Dog |  | 2008 |
|  | GU186382 | Dog |  | 2007 |
|  | GQ857470 | Dog |  | 2006 |
|  | FJ602457 | Dog |  | 2007 |
|  | FJ825127 | Dog |  | 2008 |
|  | GQ857466 | Dog |  | 2008 |
|  | EU828656 | Dog |  | 2007 |
|  | EU086143 | Dog |  | 1989 |
|  | DQ849044 | Dog |  | 2004 |
|  | GU233763 | Ferret badger |  | 2009 |
|  | DQ849064 | Dog |  | 2004 |
|  | DQ849063 | Human |  | 2006 |
|  | DQ849061 | Dog |  | 2005 |
|  | EU700030 | Human |  | 2008 |
|  |  |  |  |  |
| China-2 | GU186387 | Dog | China | 2005 |
|  | GU186396 | Dog |  | 2005 |
|  | DQ849072 | Dog |  | 1992 |
|  |  |  |  |  |
| China-3 | JQ699270 | Dog | China | 2005 |
|  | EU828654 | Dog |  | 2007 |
|  | JQ699262 | Dog |  | 2010 |
|  | JQ699265 | Dog |  | 2008 |
|  | JN936711 | Dog |  | 2006 |
|  | GU186379 | Dog |  | 2005 |
|  |  |  |  |  |
| China-4 | GQ857468 | Ferret badger | China | 2008 |
|  | JN936788 | Ferret badger |  | 2008 |
|  | FJ825135  | Ferret badger |  | 2008 |
|  | GU647092 | Ferret badger |  | 2008 |
|  | FJ719752  | Ferret badger |  | 2008 |
|  | JQ950453 | Ferret badger |  | 2012 |
|  | FJ719749 | Ferret badger |  | 2008 |
|  | JQ950451  | Ferret badger |  | 2012 |
|  | JQ950449 | Ferret badger |  | 2012 |
|  | FJ712196 | Ferret badger |  | 2008 |
|  | FJ712195 | Ferret badger |  | 2008 |
|  |  |  |  |  |
| Philippines | AB563888 | Dog | Philippines | 2008 |
|  | AB563824 | Dog |  | 2006 |
|  | AB683584 | Dog |  | 2004 |
|  | AB563896 | Dog |  | 2008 |
|  | AB564000 | Dog |  | 2009 |
|  |  |  |  |  |
| Korea | GU937029 | Dog | South Korea | 2008 |
|  | GU937030 | Cattle |  | 2009 |
|  | GU937026 | Racoon dog |  | 2008 |
|  | GU937025 | Racoon dog |  | 2009 |
|  |  |  |  |  |
| USA | KC792186 | Red fox | USA | 2010 |
|  | KC792187 | Red fox |  | 2010 |
|  | KC792180 | Arctic fox |  | 2011 |
|  | KC792183 | Arctic fox |  | 2011 |
|  | KC792188 | Arctic fox |  | 2010 |
|  |  |  |  |  |
| Thailand-1 | GQ303558 | Dog | Thailand | 2009 |
|  | HQ166186 | Dog |  | 2000 |
|  | GQ303557 | Human |  | 2009 |
|  |  |  |  |  |
| Thailand-2 | HQ232301 | Dog | Thailand | 2002 |
|  | EU086157 | Human |  | 1983 |
|  | AF325488 | Human |  | 1983 |
|  |  |  |  |  |
| India | GQ233040 | Dog | India | 2001 |
|  | FJ979833 | mouse |  | 2008 |
|  |  |  |  |  |
|  |  |  |  |  |
| Africa | FJ545682 | Dromedary | Africa | 1991 |
|  | FJ545661 | Human |  | 2001 |
|  | FJ545665 | Human |  | 2007 |
|  | FJ545660 | Cat |  | 1997 |
|  | FJ545673 | Cat |  | 1986 |
|  |  |  |  |  |
| Viet Nam | EU086160 | Dog | Viet Nam | 2001 |
|  | EU086159 | Dog |  | 2001 |
|  | EU086158 | Dog |  | 1983 |
|  |  |  |  |  |
| Others | DQ849069 | Dog | China: Guangxi | 1997 |
|  | AY009100 | Dog | China: Shandong | 1983 |
|  | AY987478 | Dog | India: Chandigarch | 1999 |
|  | EF151231 | Dog | India: Bareilly | 1999 |

**Supplemental Table 2.Background information of nucleoprotein (N) sequences of the rabies virus strainsin this study.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Clade/ isolate** | **Genbank****Accession no.**  | **Source** | **Country** | **Year of isolation** |
| China-1 | EU086186 | Dog | China | 2005 |
|  | EU086187 | Dog |  | 2004 |
|  | EU086188 | Dog |  | 2004 |
|  | EU086189 | Dog |  | 2004 |
|  | EU086190 | Dog |  | 2005 |
|  | EU086173 | Dog |  | 1998 |
|  | EU086174 | Dog |  | 1997 |
|  | EU086175 | Dog |  | 1997 |
|  | EU086177 | Dog |  | 1987 |
|  | EU086178 | Dog |  | 1969 |
|  | EU086179 | Dog |  | 1989 |
|  | EU086180 | Dog |  | 1990 |
|  | EU086181 | Dog |  | 1989 |
|  | GU233765 | Ferret badger |  | 2009 |
|  |  |  |  |  |
| China-3 | EU086182 | Dog | China | 1994 |
|  | EU086183 | Dog |  | 1994 |
|  | EU086184 | Sika deer |  | 1993 |
|  |  |  |  |  |
| China-4 | HQ118114 | Ferret badger | China | 2008 |
|  | HQ118115 | Ferret badger |  | 2008 |
|  | HQ118116 | Ferret badger |  | 2008 |
|  | HQ118117 | Ferret badger |  | 2008 |
|  | HQ118118 | Ferret badger |  | 2008 |
|  | JN974877 | Ferret badger |  | 2008 |
|  | FJ598135 | Ferret badger |  | 2008 |
|  | JQ950448 | Ferret badger |  | 2012 |
|  | JQ950450 | Ferret badger |  | 2012 |
|  | JQ950452 | Ferret badger |  | 2012 |
|  | FJ719751 | Ferret badger |  | 2008 |
|  | FJ719753 | Ferret badger |  | 2008 |
|  | FJ719755 | Ferret badger |  | 2008 |
|  |  |  |  |  |
| Philippines | EU086200 | Dog | Philippines | 1994 |
|  | EU086201 | Dog |  | 1995 |
|  | EU086202 | Dog |  | 1994 |
|  | EU086203 | Human |  | 2000 |
|  | EU086204 | Human |  | 2001 |
|  | EU086205 | Human |  | 2004 |
|  |  |  |  |  |
| Cambodia | EU086167 | Dog | Cambodia | 1999 |
|  | EU086168 | Dog |  | 1998 |
|  | EU086169 | Dog |  | 1998 |
|  | EU086171 | Dog |  | 1999 |
|  | EU086172 | Dog |  | 1998 |
|  |  |  |  |  |
| Thailand | EU086206 | Human | Thailand | 1983 |
|  | EU086207 | Human |  | 1983 |
|  |  |  |  |  |
| Viet Nam | EU086209 | Dog | Viet Nam | 2001 |
|  | EU086210 | Dog |  | 2001 |
|  |  |  |  |  |
| Nepal | EU086196 | Dog | Nepal | 1998 |
|  | EU086197 | Goat |  | 1998 |
|  | EU086198 | Mongoose |  | 1998 |
|  |  |  |  |  |
| Myanmar | EU086164 | Dog | Myanmar | 1999 |
|  | EU086165 | Dog |  | 2000 |
|  | EU086166 | Dog |  | 1999 |
|  |  |  |  |  |
| Laos | EU086193 | Dog | Laos | 1999 |
|  | EU086194 | Dog |  | 2002 |
|  | EU086195 | Dog |  | 2002 |
|  |  |  |  |  |
| Others | GU233765 | Ferret badger | China | 2009 |
|  | EU086185 | Human | China | 1992 |
|  | EU086208 | Human | Thailand | 1983 |
|  | EU086191 | Human | India | 1997 |
|  | EU086192 | Dog | Indonesia | 2003 |
|  | EU086161 | Dog | Colombia | 2004 |
|  | EU086170 | Dog | Cambodia | 1997 |
|  | EU086199 | Fox | Oman | 1990 |
|  | EU086163 | Fox | Saudi Arabia | 1987 |
|  | EU086162 | Dog | Afghanistan | 1996 |