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**Supplementary Data**

**Molecular analysis of Coxsackievirus A24 variant isolates from three outbreaks of acute hemorrhagic conjunctivitis in 1988, 1994 and 2007 in Beijing, China**

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**Table S1**  Background information of the 23 isolated strains in this study

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sample number | Location | Year | Sample source | Sample type | GenBank number |
| VP1 | 3C | Whole genome sequence |
| 88-09 | Beijing | 1988 | AHC patient | conjunctival swab | MT741560 | MT741537 | MZ171074 |
| 88-11 | Beijing | 1988 | AHC patient | conjunctival swab | MT741561 | MT741538 | MZ171075 |
| 88-12 | Beijing | 1988 | AHC patient | conjunctival swab | MT741562 | MT741539 | MZ171076 |
| 88-14 | Beijing | 1988 | AHC patient | conjunctival swab | MT741563 | MT741540 | MZ171077 |
| 88-16 | Beijing | 1988 | AHC patient | conjunctival swab | MT741564 | MT741541 | MZ171078 |
| 88-18 | Beijing | 1988 | AHC patient | conjunctival swab | MT741565 | MT741542 | MZ171079 |
| 88-19 | Beijing | 1988 | AHC patient | conjunctival swab | MT741566 | MT741543 | MZ171080 |
| 94-06 | Beijing | 1994 | AHC patient | conjunctival swab | MT741567 | MT741544 | MZ171081 |
| 94-09 | Beijing | 1994 | AHC patient | conjunctival swab | MT741568 | MT741545 | MZ171082 |
| 94-10 | Beijing | 1994 | AHC patient | conjunctival swab | MT741569 | MT741546 | MZ171083 |
| 94-14 | Beijing | 1994 | AHC patient | conjunctival swab | MT741570 | MT741547 | MZ171084 |
| 94-15 | Beijing | 1994 | AHC patient | conjunctival swab | MT741571 | MT741548 | MZ171085 |
| 94-17 | Beijing | 1994 | AHC patient | conjunctival swab | MT741572 | MT741549 | MZ171086 |
| 94-18 | Beijing | 1994 | AHC patient | conjunctival swab | MT741573 | MT741550 | MZ171087 |
| 0740 | Beijing | 2007 | AHC patient | conjunctival swab | MT741574 | MT741551 | MZ171088 |
| 0744 | Beijing | 2007 | AHC patient | conjunctival swab | MT741575 | MT741552 | MZ171089 |
| 0769 | Beijing | 2007 | AHC patient | conjunctival swab | MT741576 | MT741553 | MZ171090 |
| 07-71 | Beijing | 2007 | AHC patient | conjunctival swab | MT741577 | MT741554 | MZ171091 |
| 0775 | Beijing | 2007 | AHC patient | conjunctival swab | MT741578 | MT741555 | MZ171092 |
| 07-78 | Beijing | 2007 | AHC patient | conjunctival swab | MT741579 | MT741556 | MZ171093 |
| 07-79 | Beijing | 2007 | AHC patient | conjunctival swab | MT741580 | MT741557 | MZ171094 |
| 07-83 | Beijing | 2007 | AHC patient | conjunctival swab | MT741581 | MT741558 | MZ171095 |
| 07-84 | Beijing | 2007 | AHC patient | conjunctival swab | MT741582 | MT741559 | MZ171096 |

**Table S2** Sequence information of the 39 reference strains of VP1 region of CVA24v

|  |  |  |
| --- | --- | --- |
| GenBank number | Year | Location |
| D90457 | 1970 | Singapore |
| EF015037 | 1987 | Jamaica |
| EF015038 | 1987 | Brazil |
| EF015039 | 1993 | Dominican Republic |
| GU906790 | 1997 | Shandong, China |
| EF015040 | 1998 | Texas |
| AY876912 | 2002 | Ningbo, China |
| AY876913 | 2002 | Hangzhou, China |
| GQ329725 | 2003 | Shandong, China |
| GU983170 | 2003 | Brazil |
| EU162069 | 2004 | Spain |
| EU162068 | 2004 | Spain |
| JN228097 | 2004 | South Korea |
| DQ443001 | 2005 | Singapore |
| DQ443002 | 2005 | Singapore |
| FJ868371 | 2006 | Australia |
| EU596581 | 2007 | Yunnan, China |
| EU596582 | 2007 | Yunnan, China |
| GQ429279 | 2007 | Zhejiang, China |
| GU477573 | 2007 | Mumbai |
| GU477574 | 2007 | Mumbai |
| JF742578 | 2007 | Guangdong, China |
| JF742579 | 2007 | Guangdong, China |
| GQ429280 | 2008 | Zhejiang, China |
| GQ429286 | 2008 | Zhejiang, China |
| HQ699666 | 2010 | Zhejiang, China |
| HQ699667 | 2010 | Zhejiang, China |
| JF742576 | 2010 | Guangdong, China |
| JF742577 | 2010 | Guangdong, China |
| JN788289 | 2010 | Jiangsu, China |
| JN788290 | 2010 | Jiangsu, China |
| AB769154 | 2011 | Okinawa, Japan |
| AB769165 | 2011 | Ishigaki, Japan |
| KR399988 | 2015 | Reunion island, France |
| KR478685 | 2015 | Reunion island, France |
| MF419263 | 2017 | Guiana |
| MF557561 | 2017 | Guiana |
| MF557562 | 2017 | Guiana |
| MF557563 | 2017 | Guiana |

**Table S3** Sequence information of the 59 reference strains of 3C region of CVA24v

|  |  |  |
| --- | --- | --- |
| GenBank number | Year | Location |
| D90457 | 1970 | Singapore |
| D10294 | 1970 | Singapore |
| D10296 | 1970 | Singapore |
| D10297 | 1971 | Singapore |
| D10298 | 1975 | Singapore |
| D10299 | 1975 | Singapore |
| D10300 | 1975 | Thailand |
| D10301 | 1985 | Singapore |
| D10315 | 1986 | Islamabad |
| KC128616 | 1986 | Cuba |
| KC128643 | 1987 | Cuba |
| D10316 | 1987 | Singapore |
| D10314 | 1987 | Ghana |
| EF015037 | 1987 | Jamaica |
| EF015038 | 1987 | Brazil |
| D10319 | 1988 | Japan |
| D10321 | 1988 | Hongkong, China |
| D10322 | 1988 | Singapore |
| AB008476 | 1990 | Taiwan, China |
| EF015039 | 1993 | Dominican Republic |
| EF015040 | 1998 | Texas |
| DQ472141 | 2000 | Taiwan, China |
| DQ472132 | 2001 | Taiwan, China |
| KF725085 | 2002 | Malaysia |
| AY216788 | 2002 | Seoul |
| AY216789 | 2002 | Seoul |
| AY876912 | 2002 | Ningbo, China |
| AY876913 | 2002 | Hangzhou, China |
| AY942640 | 2003 | Mumbai |
| JN228097 | 2004 | South Korea |
| DQ443001 | 2005 | Singapore |
| DQ443002 | 2005 | Singapore |
| GQ229408 | 2007 | Yunnan, China |
| GQ229409 | 2007 | Yunnan, China |
| GU477562 | 2007 | Mumbai |
| GU477570 | 2007 | Mumbai |
| GQ429281 | 2007 | Zhejiang, China |
| JF742578 | 2007 | Guangdong, China |
| JF742579 | 2007 | Guangdong, China |
| GQ429283 | 2008 | Zhejiang, China |
| HQ699670 | 2010 | Zhejiang, China |
| JF742560 | 2010 | Guangdong, China |
| JF742576 | 2010 | Guangdong, China |
| JF742577 | 2010 | Guangdong, China |
| JX417146 | 2010 | India |
| KF667359 | 2010 | India |
| KF667358 | 2010 | India |
| JN788269 | 2010 | Jiangsu, China |
| MK989721 | 2010 | Kenya |
| AB769152 | 2011 | Okinawa, Japan |
| AB769154 | 2011 | Okinawa, Japan |
| AB769163 | 2011 | Ishigaki, Japan |
| AB769164 | 2011 | Ishigaki, Japan |
| KR399988 | 2015 | Reunion island, France |
| KR478685 | 2015 | Reunion island, France |
| MF419263 | 2017 | French Guiana |
| MF557561 | 2017 | French Guiana |
| MG880747 | 2017 | Mexico |
| MG880745 | 2017 | Mexico |

**Table S4** Sequence information of the 42 reference strains of whole genome of CVA24v

|  |  |  |
| --- | --- | --- |
| GenBank number | Year | Location |
| D90457 | 1970 | Singapore |
| EF015037 | 1987 | Jamaica |
| EF015038 | 1987 | Brazil |
| EF015039 | 1993 | Dominican Republic |
| EF015040 | 1998 | Texas |
| AY876912 | 2002 | Ningbo, China |
| AY876913 | 2002 | Hangzhou, China |
| KF725085 | 2002 | Malaysia |
| JN228097 | 2004 | South Korea |
| DQ443001 | 2005 | Singapore |
| DQ443002 | 2005 | Singapore |
| JF742578 | 2007 | Guangdong, China |
| JF742579 | 2007 | Guangdong, China |
| KF667359 | 2010 | India |
| KF667358 | 2010 | India |
| KF667360 | 2010 | India |
| KF667361 | 2010 | India |
| MK989721 | 2010 | Kenya |
| JF742576 | 2010 | Guangdong, China |
| JF742577 | 2010 | Guangdong, China |
| AB769152 | 2011 | Okinawa, Japan |
| AB769154 | 2011 | Okinawa, Japan |
| AB769156 | 2011 | Okinawa, Japan |
| AB769159 | 2011 | Okinawa, Japan |
| AB769160 | 2011 | Okinawa, Japan |
| AB769161 | 2011 | Okinawa, Japan |
| AB769162 | 2011 | Okinawa, Japan |
| AB769163 | 2011 | Ishigaki, Japan |
| AB769164 | 2011 | Ishigaki, Japan |
| AB769165 | 2011 | Ishigaki, Japan |
| KR399988 | 2015 | Reunion island, France |
| KR478685 | 2015 | Reunion island, France |
| MF419263 | 2017 | French Guiana |
| MF557561 | 2017 | French Guiana |
| MF557562 | 2017 | French Guiana |
| MF557563 | 2017 | French Guiana |
| MG880745 | 2017 | Mexico |
| MG880747 | 2017 | Mexico |
| MG880748 | 2017 | Mexico |
| MG880749 | 2017 | Mexico |
| MG880750 | 2017 | Mexico |
| MG880751 | 2017 | Mexico |