| Number | Name                        | Host                  | GenBank number | Sampling date | Place of isolation |
|--------|-----------------------------|-----------------------|----------------|---------------|--------------------|
| 1      | SARS-CoV-GZ02               | Human                 | AY390556       | 11/02/2003    | Guangdong          |
| 2      | SARS-CoV-Tor2               | Human                 | AY274119.3     | 03/03/2003    | Toronto            |
| 3      | SARS-CoV-BJ01               | Human                 | AY278488.2     | 2003          | Beijing            |
| 4      | SARS-CoV-2                  | Human                 | MN908947.3     | 12/2019       | Hubei              |
| 5      | SARS-CoV-civet010           | Civet                 | AY572035       | 02/01/2004    | Guangdong          |
| 6      | SARS-CoV-civet020           | Civet                 | AY572038       | 02/01/2004    | Guangdong          |
| 7      | SARS-CoV-SZ3                | Civet                 | AY304486       | 15/05/2003    | Guangdong          |
| 8      | Pangolin-CoV-2020           | Pangolin              | MT121216       | 03/29/2019    | Guangdong          |
| 9      | Bat-SARSr-CoV-Rs3367        | Rhinolophus sinicus  | KC881006       | 03/19/2012    | Yunnan             |
| 10     | Bat_SARSr_CoV_Rs9401        | Rhinolophus sinicus  | KY417125       | 10/16/2015    | Yunnan             |
| 11     | Bat_SARSr_CoV_Rs7327        | Rhinolophus sinicus  | KY417151       | 10/24/2014    | Yunnan             |
| 12     | Bat_SARSr-CoV-WIV1          | Rhinolophus sinicus  | KF367457       | 09/2012       | Yunnan             |
| 13     | Bat-SARSr-CoV-Rs4874        | Rhinolophus sinicus  | KY417150       | 07/21/2013    | Yunnan             |
| 14     | Bat-SARSr-CoV-YN2020B       | Rhinolophus sinicus  | OK017852       | 06/2020       | Yunnan             |
| 15     | Bat-SARSr-CoV-YN2020C       | Rhinolophus sinicus  | OK017853       | 06/2020       | Yunnan             |
| 16     | Bat-SARSr-CoV-YN2020D       | Rhinolophus sinicus  | OK017854       | 06/2020       | Yunnan             |
| 17     | Bat-SARSr-CoV-YN2020E       | Rhinolophus sinicus  | OK017855       | 06/2020       | Yunnan             |
| 18     | Bat-SARSr-CoV-Rs4255        | Rhinolophus sinicus  | KY417149       | 04/17/2013    | Yunnan             |
| 19     | Bat-SARSr-CoV-Rf4092        | Rhinolophus ferrumequinum | KY417145 | 09/18/2012 | Yunnan             |
| 20     | Bat-SARSr-CoV-YN2013        | Rhinolophus sinicus  | KJ473816       | 2013          | Yunnan             |
| 21     | Bat_SARSr_CoV_YN2018D       | Rhinolophus affinis   | MK211378       | 09/2016       | Yunnan             |
| 22     | Bat-CoV-LYRa11              | Rhinolophus affinis   | KF569996       | 2011          | Yunnan             |
| 23     | Bat-CoV-RaTG13              | Rhinolophus affinis   | MN996532.2     | 07/24/2013    | Yunnan             |
| 24     | Bat-SARSr-CoV-Rs672         | Rhinolophus sinicus  | FJ588686       | 2006          | Guizhou            |
| 25     | Bat-SARSr-CoV-GZ20211       | Rhinolophus sinicus  | OK017831       | 03/2021       | Guizhou            |
| 26     | Bat-SARSr-CoV-GZ2021C       | Rhinolophus sinicus  | OK017829       | 03/2021       | Guizhou            |
| 27     | Bat-SARSr-CoV-GZ2021H       | Rhinolophus sinicus  | OK017830       | 03/2021       | Guizhou            |
| 28     | Bat-SARSr-CoV-GX2013        | Rhinolophus sinicus  | KJ473815       | 2013          | Guangxi            |
| 29     | Bat-SARSr-CoV-Rp3           | Rhinolophus persioni  | DQ071615       | 2004/12/4     | Guangxi            |
| 30     | Bat-SARSr-CoV-GX2019A       | Rhinolophus siamensis | OK017859       | 09/2019       | Guangxi            |
| 31     | Bat-SARSr-CoV-HuB2013       | Rhinolophus sinicus  | KJ473814       | 2013          | Hubei              |
| 32     | Bat-SARSr-CoV-279/04        | Rhinolophus ferrumequinum | DQ648857 | 2004        | Hubei              |
| 33     | Bat-SARSr-CoV-273/04        | Rhinolophus macrotis  | DQ648856       | 2004          | Hubei              |
| 34     | Bat-SARSr-CoV-Rm1           | Rhinolophus macrotis  | DQ412043       | 2004/11/4     | Hubei              |

**Table S3 Information of Betacoronaviruses in GenBank database**
| 35 | Bat-SARSr-CoV-Rf1 | *Rhinolophus ferrumequinum* | DQ412042 | 2004/11/4 | Hubei |
| 36 | Bat-SARSr-CoV-LN2020A | *Rhinolophus ferrumequinum* | OK017794 | 09/2020 | Liaoning |
| 37 | Bat-SARSr-CoV-LN2020B | *Rhinolophus ferrumequinum* | OK017795 | 09/2020 | Liaoning |
| 38 | Bat-SARSr-CoV-LN2020C | *Rhinolophus ferrumequinum* | OK017796 | 09/2020 | Liaoning |
| 39 | Bat-SARSr-CoV-LN2020E | *Rhinolophus ferrumequinum* | OK017797 | 09/2020 | Liaoning |
| 40 | Bat-SARSr-CoV-LN2020F | *Rhinolophus ferrumequinum* | OK017798 | 09/2020 | Liaoning |
| 41 | Bat-SARSr-CoV-LN2021G | *Rhinolophus ferrumequinum* | OK017799 | 09/2020 | Liaoning |
| 42 | Bat-SARSr-CoV-LN2020H | *Rhinolophus ferrumequinum* | OK017800 | 09/2020 | Liaoning |
| 43 | Bat-SARSr-CoV-ZXC21 | *Rhinolophus pusillus* | MG772934 | 07/2015 | Zhejiang |
| 44 | Bat-SARSr-CoV-ZC45 | *Rhinolophus pusillus* | MG772933 | 02/2017 | Zhejiang |
| 45 | Bat-SARSr-CoV-HKU3-1 | *Rhinolophus sinicus* | DQ022305.2 | 17/02/2005 | Hong Kong |
| 46 | Bat-SARSr-CoV-HKU3-2 | *Rhinolophus sinicus* | DQ084199 | 24/02/2005 | Hong Kong |
| 47 | Bat-SARSr-CoV-HKU3-3 | *Rhinolophus sinicus* | DQ084200 | 17/03/2005 | Hong Kong |
| 48 | Bat-SARSr-CoV-HKU3-4 | *Rhinolophus sinicus* | GQ153539 | 20/07/2005 | Hong Kong |
| 49 | Bat-SARSr-CoV-HKU3-5 | *Rhinolophus sinicus* | GQ153540 | 20/09/2005 | Hong Kong |
| 50 | Bat-SARSr-CoV-HKU3-6 | *Rhinolophus sinicus* | GQ153541 | 16/12/2005 | Hong Kong |
| 51 | Bat-SARSr-CoV-HKU3-7 | *Rhinolophus sinicus* | GQ153542 | 15/02/2006 | Guangdong |
| 52 | Bat-SARSr-CoV-HKU3-8 | *Rhinolophus sinicus* | GQ153543 | 15/02/2006 | Guangdong |
| 53 | Bat-SARSr-CoV-HKU3-9 | *Rhinolophus sinicus* | GQ153544 | 28/08/2006 | Hong Kong |
| 54 | Bat-SARSr-CoV-HKU3-10 | *Rhinolophus sinicus* | GQ153545 | 28/08/2006 | Hong Kong |
| 55 | Bat-SARSr-CoV-HKU3-11 | *Rhinolophus sinicus* | GQ153546 | 07/03/2007 | Hong Kong |
| 56 | Bat-SARSr-CoV-HKU3-12 | *Rhinolophus sinicus* | GQ153547 | 15/05/2007 | Hong Kong |
| 57 | Bat-SARSr-CoV-HKU3-13 | *Rhinolophus sinicus* | GQ153548 | 15/11/2007 | Hong Kong |
| 58 | Bat-SARSr-CoV-JX2021P | *Rhinolophus sinicus* | OK017845 | 07/2021 | Jiangxi |
| 59 | Bat-SARSr-CoV-JX2021AC | *Rhinolophus sinicus* | OK017836 | 07/2021 | Jiangxi |
| 60 | Bat-SARSr-CoV-JX2021C | *Rhinolophus sinicus* | OK017837 | 07/2021 | Jiangxi |
| 61 | Bat-SARSr-CoV-JX2021G | *Rhinolophus sinicus* | OK017838 | 07/2021 | Jiangxi |
| 62 | Bat-SARSr-CoV-JX2021J | *Rhinolophus sinicus* | OK017839 | 07/2021 | Jiangxi |
| 63 | Bat-SARSr-CoV-JX2021K | *Rhinolophus sinicus* | OK017840 | 07/2021 | Jiangxi |
| 64 | Bat-SARSr-CoV-JX2021L | *Rhinolophus sinicus* | OK017841 | 07/2021 | Jiangxi |
| 65 | Bat-SARSr-CoV-JX2021M | *Rhinolophus sinicus* | OK017842 | 07/2021 | Jiangxi |
| 66 | Bat-SARSr-CoV-JX2021N | *Rhinolophus sinicus* | OK017843 | 07/2021 | Jiangxi |
| 67 | Bat-SARSr-CoV-JX2021O | *Rhinolophus sinicus* | OK017844 | 07/2021 | Jiangxi |
|   | Bat-SARSr-CoV-HN2021A | *Rhinolophus pusillus* | OK017803 | 02/2021 | Hunan |
|---|----------------------|------------------------|----------|---------|-------|
| 68| Bat-SARSr-CoV-HN2021B | *Rhinolophus pusillus* | OK017804 | 02/2021 | Hunan |
| 69| Bat-SARSr-CoV-HN2021C | *Rhinolophus sinicus*  | OK017832 | 02/2021 | Hunan |
| 70| Bat-SARSr-CoV-HN2021D | *Rhinolophus sinicus*  | OK017833 | 02/2021 | Hunan |
| 71| Bat-SARSr-CoV-HN2021E | *Rhinolophus sinicus*  | OK017834 | 03/2021 | Hunan |
| 72| Bat-SARSr-CoV-HN2021F | *Rhinolophus sinicus*  | OK017835 | 03/2021 | Hunan |
| 73| Bat-SARSr-CoV-HN2021G | *Rhinolophus sinicus*  | OK017805 | 03/2021 | Hunan |
| 74| Bat-SARSr-CoV-GD2019A | *Rhinolophus sinicus*  | OK017825 | 08/2019 | Guangdong |
| 75| Bat-SARSr-CoV-GD2019B | *Rhinolophus sinicus*  | OK017826 | 08/2019 | Guangdong |
| 76| Bat-SARSr-CoV-GD2019C | *Rhinolophus sinicus*  | OK017827 | 09/2019 | Guangdong |
| 77| Bat-SARSr-CoV-GD2019D | *Rhinolophus sinicus*  | OK017828 | 09/2019 | Guangdong |
| 78| Bat-SARSr-CoV-GD2019E | *Rhinolophus sinicus*  | OK017829 | 09/2019 | Guangdong |
| 79| Bat-SARSr-CoV-GD2019F | *Rhinolophus affinis*  | OK017792 | 08/2017 | Guangdong |
| 80| Bat-SARSr-CoV-GD2019G | *Rhinolophus sinicus*  | OK017813 | 09/2017 | Guangdong |
| 81| Bat-SARSr-CoV-GD2019H | *Rhinolophus sinicus*  | OK017814 | 09/2017 | Guangdong |
| 82| Bat-SARSr-CoV-GD2019I | *Rhinolophus sinicus*  | OK017815 | 09/2017 | Guangdong |
| 83| Bat-SARSr-CoV-GD2019J | *Rhinolophus sinicus*  | OK017816 | 09/2017 | Guangdong |
| 84| Bat-SARSr-CoV-GD2019K | *Rhinolophus sinicus*  | OK017817 | 09/2017 | Guangdong |
| 85| Bat-SARSr-CoV-GD2019L | *Rhinolophus sinicus*  | OK017818 | 09/2017 | Guangdong |
| 86| Bat-SARSr-CoV-GD2019M | *Rhinolophus sinicus*  | OK017819 | 09/2017 | Guangdong |
| 87| Bat-SARSr-CoV-GD2019N | *Rhinolophus sinicus*  | OK017820 | 09/2017 | Guangdong |
| 88| Bat-SARSr-CoV-GD2019O | *Rhinolophus sinicus*  | OK017821 | 09/2017 | Guangdong |
| 89| Bat-SARSr-CoV-GD2019P | *Rhinolophus sinicus*  | OK017822 | 09/2017 | Guangdong |
| 90| Bat-SARSr-CoV-GD2019Q | *Rhinolophus sinicus*  | OK017823 | 09/2017 | Guangdong |
| 91| Bat-SARSr-CoV-GD2019R | *Rhinolophus sinicus*  | OK017824 | 09/2017 | Guangdong |
| 92| Bat-SARSr-CoV-GD2019S | *Rhinolophus sinicus*  | OK017825 | 09/2017 | Guangdong |
| 93| Bat-SARSr-CoV-FJ2021A | *Rhinolophus sinicus*  | OK017808 | 05/2021 | Fujian |
| 94| Bat-SARSr-CoV-FJ2021B | *Rhinolophus sinicus*  | OK017809 | 05/2021 | Fujian |
| 95| Bat-SARSr-CoV-FJ2021C | *Rhinolophus sinicus*  | OK017810 | 05/2021 | Fujian |
| 96| Bat-SARSr-CoV-FJ2021D | *Rhinolophus sinicus*  | OK017811 | 05/2021 | Fujian |
| 97| Bat-SARSr-CoV-BtKY72  | *Rhinolophus sp.*      | KY352407 | 08/2007 | Kenya |