**Table S1. Characteristics of the 62 patients determined near full-length sequences of KSB HIV-1 and 3 non-KSB patients**.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Patient  (code) or isolate | Year of diagnosis | Date of sample collection  (date-year) | Near full length sequences | GenBank no. | CD4+ T cell/ul | Viral load (copy/ml) | *Env* gene sequence length | *nef* gene sequence length | Duration  of  cART (mo) |
| 141 Korean subtype B | | | | | | | | | |
| 93BGO2 | 1988 | Feb-93 | 8,651 | MT559045 | 256 | 2,393 | 2,595 | 621 | 0 |
| 92HSH1 | 1989 | Jan-92 | 8,645 | MK577481 | 594 | 873 | 2,589 | 621 | 0 |
| 92LSW5 | 1989 | May-92 | 8,638 | KJ140266 | 329 | 34,355 | 2,592 | 621 | 0 |
| 92LSY12 | 1989 | Dec-92 | 8,606 | MN043589 | 279 | 583 | 2,550 | 621 | 0 |
| 00LJI12 | 1989 | Dec-00 | 8,624 | MN043590 | 53 | 90,467 | 2,568 | 621 | 12 |
| 93PJA9 | 1989 | Sep-93 | 8,696 | MN043595 | 124 | 20,808 | 2,613 | 648 | 0 |
| 92KJS11 | 1989 | Nov-92 | 8,696 | MN043596 | 242 | 1,703 | 2,613 | 648 | 0 |
| 04KJS8 | 1989 | Aug-04 | 8,687 | JQ316130 | 109 | 162,000 | 2,568 | 651b | 0 |
| 92KYJ5 | 1989 | May-92 | 8,654 | MN043597 | 315 | 12,748 | 2,598 | 621 | 0 |
| 93KHS5 | 1989 | May-93 | 8,666 | MN043593 | 138 | 64,405 | 2,589 | 642 | 0 |
| 93HYH5 | 1989 | May-93 | 8,603 | MN043594 | 266 | 995 | 2,547 | 621 | 0 |
| 99HYH2 | 1989 | Feb-99 | 8,636 | JQ316129 | 18 | 211,506 | 2,580 | 621 | 0 |
| 93BJR3 | 1989 | Mar-93 | 8,648 | MN043586 | 558 | 995 | 2,592 | 621 | 0 |
| 92LSK6 | 1990 | Jun-92 | 8,638 | MN043582 | 279 | 1,181 | 2,582 | 621 | 0 |
| 04LSK7 | 1990 | Jul-04 | 8,667 | DQ295192 | 225 | 4,500 | 2,589 | 624 | 0 |
| 92KChS3 | 1990 | Mar-92 | 8,505 c | MT559044 | 387 | ND | 2,536c | 624 | 0 |
| 92YWS6 | 1990 | Jun-92 | 8,600 | MK577480 | 307 | 1,292 | 2,544 | 621 | 0 |
| 93LSH5 | 1990 | May-93 | 8,600 | MN043583 | 813 | 1,925 | 2,547 | 621 | 0 |
| 03LSH1 | 1990 | Jan-03 | 8,693 | JQ316127 | 501 | 116,000 | 2,619 | 630 | 0 |
| 92KHB4 | 1990 | Apr-92 | 8,612 | MN043584 | 252 | 1,732 | 2,556 | 624 | 0 |
| 94KHB5 | 1990 | May-94 | 8,639 | KJ140267 | 208 | 6,307 | 2,583 | 621 | 0 |
| 93KDG4 | 1990 | Apr-93 | 8,597 | MN237642 | 319 | 408 | 2,541 | 621 | 0 |
| 93JJS10 | 1990 | Oct-93 | 8,654 | MK577479 | 436 | 360 | 2,598 | 621 | 0 |
| 93YEH1 | 1990 | Jan-93 | 8,618 | MN043592 | 418 | 3,689 | 2,562 | 621 | 0 |
| 03YGS3 | 1990 | Mar-03 | 8,675 | JQ316135 | 578 | 698 | 2,619 | 621 | 0 |
| 93KJin2 | 1990 | Feb-93 | 8,594 | MN043581 | 833 | 37,728 | 2,565 | 621 | 0 |
| 04KJin8 | 1990 | Aug-04 | 8,654 | DQ295195 | 332 | 104,000 | 2,604 | 621 | 0 |
| 92OCH3 | 1990 | Mar-92 | 8,657 | MN237644 | 247 | 2,790 | 2,589 | 633 | 0 |
| 91LCS9 | 1991 | Sep-91 | 8,614 | MT559066 | 1620 | 6,310 | 2,553 | 627 | 0 |
| 92DGi6 | 1991 | Jun-92 | 8,618 | MT559046 | 552 | 12,385 | 2,562 | 621 | 0 |
| 92JWK3 | 1991 | Mar-92 | 8,633 | MN043585 | 422 | 7,870 | 2,577 | 621 | 0 |
| 97JWk7 | 1991 | Jul-97 | 8,657 | AF224507 | 701 | 5,825 | 2,601 | 621 | 0 |
| 04JWk7 | 1991 | Jul-04 | 8,612 | DQ295194 | 642 | 17,800 | 2,553 | 621 | 0 |
| 91HJY7 | 1991 | Jul-91 | 8,639 | MN043577 | 337 | 1,470 | 2,574 | 621 | 0 |
| 03HJY8 | 1991 | Aug-03 | 8,651 | JQ316131 | 238 | 1,700 | 2,595 | 621 | 0 |
| 91KGS7 | 1991 | Jul-91 | 8,613 | MN043576 | 453 | 7,870 | 2,554 | 621 | 0 |
| 99KGS8 | 1991 | Aug-99 | 8,693 | MT877449 | 95 | ND | 2,607 | 648 | 0 |
| 03KGS5 | 1991 | May-03 | 8,681 | JQ316132 | 15 | 366,197 | 2,496 | 648 | 15 |
| 91KYB12 | 1991 | Dec-91 | 8,615 | MN043591 | 137 | 434,445 | 2,559 | 621 | 0 |
| 92HJiH1 | 1991 | Jan-92 | 8,605 | MN043588 | 533 | 16,044 | 2,558 | 621 | 0 |
| Donor O:91OSG10 | 1990 | Oct-91 | 8,609 | KF561442 | 409 | 7,180 | 2,553 | 621 | 0 |
| Donor O:02OSG1 | 1990 | Jan-02 | 8,627 | JQ429433 | 216 | 97,800 | 2,571 | 621 | 36 |
| HP-1:92Lys9 | 1990 | Sep-92 | 8,618 | KJ140245 | 425 | 2,515 | 2,562 | 621 | 0 |
| HP-2:92JJW1 | 1991 | Jan-92 | 8,624 | KJ140247 | 636 | 34,336 | 2,568 | 621 | 0 |
| HP-2:04JJW2 | 1991 | Feb-04 | 8,663 | MT679550 | 261 | 35,900 | 2,607 | 621 | 0 |
|  | 1991 | Feb-04 | 8,666 | MT679551 | 261 | 35,900 | 2,610 | 621 | 0 |
| HP-2:19JJW6 | 1991 | Jun-19 | 8,616 | MT559047 | 380 | <20 | 2,604 | 621 | 156 |
| HP-2:20JJW4 | 1992 | Apr-20 | 8,604 a | 18019/18015 | 444 | <20 | 2,592 | 621 | 166 |
| HP-3:92LJW8 | 1991 | Aug-92 | 8,627 | KJ140248 | 365 | 22,370 | 2,571 | 621 | 0 |
| HP-3:02LJW8 | 1991 | Aug-02 | 8,645 | MT582420 | 26 | 107,800 | 2,589 | 621 | 0 |
| HP-3:12LJW12 | 1991 | Dec-12 | 8,662 | MW405324 | 471 | 128 | 2,610 | 618 | 117 |
| HP-3:16LJW2 | 1991 | Feb-16 | 8,677 | MT224125 | 679 | <20 | 2,616 | 621 | 156 |
| HP-3:20LJW2 | 1991 | Feb-20 | 8,716 | MT559048 | 757 | <20 | 2,643 | 618 | 204 |
| HP-3:20LJW2 | 1991 | Feb-20 | 8,704 | MT559049 | 757 | <20 | 2,643 | 621 | 204 |
| HP-3:21LJW2 | 1991 | Feb-21 | 8,680 a | 17993 | 840 | <20 | 2,624 | 621 | 216 |
| HP-3:21LJW2 | 1991 | Feb-21 | 8,674 a | 17992 | 840 | <20 | 2,618 | 621 | 216 |
| HP-3:21LJW2 | 1991 | Feb-21 |  | 18017/18018 | 840 | <20 |  | 621 | 216 |
| HP-4:93KGJ10 | 1991 | Oct-93 | 8,621 | KU869610 | 826 | <8,180 | 2,565 | 621 | 0 |
| HP-4:03KGJ2 | 1991 | Feb-03 | 8,709 | KJ140249 | 319 | 8,180 | 2,629 | 645 | 0 |
| HP-4:09KGJ12 | 1991 | Dec-09 | 8,636a | MW405267 | 539 | <20 | 2,580 | 621,651 b | 73 |
| HP-4:19KGJ7 | 1991 | Jul-19 | 8,657 | MT559050 | 914 | <20 | 2,601 | 621 | 192 |
| HP-6:92JHJ9 | 1992 | Sep-92 | 8,606 | KJ140251 | 881 | 3,849 | 2,550 | 621 | 0 |
| HP-6:03JHJ2 | 1992 | Feb-03 | 8,693 | MT679552 | 690 | <20 | 2,640 | 618 | 0 |
| HP-6:19JHJ7 | 1992 | Jul-19 | 8,672 | MT559051 | 195 | <20 | 2,619 | 618 | 222 |
| HP-8:92CWS5 | 1992 | May-92 | 8,596 c | MN043599 | 241 | 1,120 | 2,553 | 621 | 0 |
| HP-8:95CWS4 | 1992 | Apr-95 | 8,621 | KJ140253 | 190 | <3,765 | 2,565 | 621 | 0 |
| HP-8:03CWS10 | 1992 | Oct-03 | 8,652 | MN043600 | 184 | 14,600 | 2,586 | 630 | 0 |
| HP-8:04CWS5 | 1992 | May-04 | 8,543 c | JQ316133 | 212 | ND | 2,478c | 630 | 0 |
| HP-8:09CWS12 | 1992 | Dec-09 | 8,709 | KU869620 | 120 | <20 | 2,646 | ND | 28 |
| HP-8:11CWS1 | 1992 | Jan-11 | 8,654 | MT582421 | 35 | 2,080 | 2,601 | 630 | 48 |
| HP-8:11CWS1 | 1992 | Jan-11 | 8,654a | MW405272 | 35 | 2,080 | 2,601 | 630 | 48 |
| HP-8:11CWS1 | 1992 | Jan-11 | 8,654a | MW405271 | 35 | 2,080 | 2,601 | 630 | 48 |
| HP-10:92SHJ8 | 1992 | Aug-92 | 8,597 | KJ140255 | 142 | 11,509 | 2,541 | 621 | 0 |
| HP-10:02SHJ8 | 1992 | Aug-02 | 8,663 | MN043601 | 36 | 12,020 | 2,589 | 639 | 0 |
| HP-18:93JHS5 | 1993 | May-93 | 8,612 | KF561443 | 191 | 23,818 | 2,556 | 621 | 0 |
| HP-18:97JHS8 | 1993 | Aug-97 | 8,630 | MW405327 | 21 | 20,960 | 2,574 | 621 | 0 |
| HP-18:97JHS8 | 1993 | Aug-97 | 8,639 | MW405328 | 21 | 20,960 | 2,574 | 621 | 0 |
| HP-18:07JHS10 | 1993 | Oct-07 | 8,633 | KJ140263 | 217 | <20 | 2,577 | 621 | 118 |
| HP-18:09JHS5 | 1993 | May-09 | 8,636 | MT559061 | 121 | <20 | 2,571 | 621 | 137 |
| Donor P | 1991 | Oct-93 | 8,618 | MK577478 | 433 | 10,404 | 2,559 | 624 | 0 |
| HP-5:92PJH8 | 1992 | Aug-92 | 8,612 | KJ140250 | 554 | 47,255 | 2,553 | 624 | 0 |
| HP-5:95PJH6 | 1992 | Jun-95 | 8,606 | MT224126 | 98 | 15,701 | 2,550 | 621 | 0 |
| HP-7:92LSM10 | 1992 | Oct-92 | 8,606 | KJ140252 | 780 | 5,297 | 2,550 | 624 | 0 |
| HP-7:96LSM10 | 1992 | Oct-96 | 8,669 | MT679553 | 72 | >86,508 | 2,598 | 636 | 0 |
| HP-7:19LSM8 | 1992 | Aug-19 | 8,654 | MT559052 | 488 | <20 | 2,580 | 639 | 132 |
| HP-7:19LSM8 | 1992 | Aug-19 | 8,672 | MT559053 | 488 | <20 | 2,601 | 636 | 132 |
| HP-9:02KDE12 | 1992 | Dec-02 | 8,663 | KJ140254 | 281 | 11,500 | 2,604 | 624 | 0 |
| HP-9:03KDE11 | 1992 | Nov-03 | 8,660 | JQ316128 | 502 | 11,500 | 2,604 | 621 | 0 |
| HP-9:06KDE9 | 1992 | Sep-06 | 8,657 | MW405273 | 141 | 23,700 | 2,601 | 621 | 0 |
| HP-9:07KDE12 | 1992 | Dec-07 | 8,697 a | MW405274 | 492 | <400 | 2,641 | 621 | 5 |
| HP-9:07KDE12 | 1992 | Dec-07 | 8,658 a | MW405275 | 492 | <400 | 2,602 | 621 | 5 |
| HP-9:07KDE12 | 1992 | Dec-07 | 8,648 | MW405325 | 492 | <400 | 2,592 | 621 | 5 |
| HP-9:11KDE3 | 1992 | Mar-11 | 8,738 | KU869551 | 650 | <40 | 2,682 | 621 | 44 |
| HP-9:11KDE3 | 1992 | Mar-11 | 8,672 | KU869552 | 650 | <40 | 2,616 | 609 | 44 |
| HP-9:18KDE11 | 1992 | Nov-18 | 8,627 | MT559054 | 1159 | <20 | 2,583 | 609 | 132 |
| HP-9:18KDE11 | 1992 | Nov-18 | 8,675 | MT559055 | 1159 | <20 | 2,619 | 621 | 132 |
| HP-11:92PGU7 | 1992 | Jul-92 | 8,636 | KJ140256 | 966 | 7,546 | 2,568 | 624 | 0 |
| HP-11:02PGU10 | 1992 | Oct-02 | 8,654 | MN043602 | 414 | 80,500 | 2,574 | 636 | 0 |
| HP-11:08PGU7 | 1992 | Jun-08 | 8,762 | KU896082 | 407 | 17,600 | 2,682 | 636 | 55 |
| HP-11:08PGU7 | 1992 | Jun-08 | 8,681 | KU896083 | 407 | 17,600 | 2,601 | 636 | 55 |
| HP-11:19PGU11 | 1992 | Nov-19 | 8,663 | MT559056 | 1277 | <20 | 2,583 | 636 | 192 |
| HP-11:19PGU11 | 1992 | Nov-19 | 8,663 | MT559057 | 1277 | <20 | 2,583 | 636 | 192 |
| HP-11:21PGU2 | 1992 | Feb-21 | 8,666 a | 17979 | 1909 | <20 | 2,586 | 636 | 207 |
| HP-11:21PGU2 | 1992 | Feb-21 | 8,654 a | 17980 | 1909 | <20 | 2,574 | 636 | 207 |
| HP-12:92LGH5 | 1992 | May-92 | 8,606 | KJ140257 | 767 | 26,616 | 2,547 | 624 | 0 |
| HP-12:02LGH10 | 1992 | Oct-02 | 8,648 | MN043603 | 393 | <400 | 2,592 | 621 | 5 |
| HP-12:11LGH8 | 1992 | Aug-11 | 8,654 | KU869555 | 884 | <20 | 2,598 | 609 | 111 |
| HP-12:17LGH9 | 1992 | Sep-17 | 8,642 a | MW405279 | 380 | <20 | 2,586 | ND | 184 |
| HP-12:19LGH11 | 1992 | Nov-19 | 8,651 | MT559058 | 384 | <20 | 2,595 | 624 | 210 |
| HP-12:19LGH11 | 1992 | Nov-19 | 8,645 | MT559059 | 384 | <20 | 2,598 | 609 | 210 |
| HP-12:21LGH3 | 1992 | Mar-21 | 8,660 a | 17989 | 367 | <20 | 2,601 | 621 | 226 |
| HP-13:92KMK7 | 1992 | Jul-92 | 8,609 | KJ140258 | 446 | 558 | 2,550 | 624 | 0 |
| HP-13:04KMK5 | 1992 | May-04 | 8,648 | JQ316126 | 424 | 4,000 | 2,580 | 624 | 0 |
| HP-13:14KMK2 | 1992 | Feb-14 | 8,671 | MW405326 | 377 | <20 | 2,589 | 639 | 96 |
| HP-14:92KTG3 | 1992 | Mar-92 | 8,609 | MN043604 | 420 | <20 | 2,550 | 624 | 0 |
| HP-14:97KTG8 | 1992 | Aug-97 | 8,609 | KJ140259 | 219 | 4,606 | 2,550 | 624 | 0 |
| HP-14:07KTG10 | 1992 | Oct-07 | 8,669 | MN043605 | 47 | 88,600 | 2,592 | 630 | 0 |
| HP-14:12KTG8 | 1992 | Aug-12 | 8,686 | KU869559 | 56 | 2,900 | 2,615 | 630 | 40 |
| HP-14:19KTG8 | 1992 | Aug-19 | 8,675 | MT582422 | 202 | <20 | 2,604 | 624 | 128 |
| HP-14:21KTG3 | 1992 | Mar-21 | 8,654 a | 17975 | 115 | <20 | 2,583 | 624 | 147 |
| HP-15:03Lsw3 | 1992 | Mar-03 | 8,642 | KJ140260 | 643 | 111 | 2,556 | 651 b | 0 |
| HP-15:17Lsw1 | 1992 | Jan-17 | 8,658 a | 17090 | 85 | nT | 2,572 | ND | 60 |
| HP-15:19Lsw12 | 1992 | Dec-19 | 8,612 | MT559060 | 75 | <20 | 2,556 | 621 | 92 |
| HP-16:92JIS12 | 1992 | Dec-92 | 8,639 | KJ140261 | 315 | 335 | 2,580 | 624 | 0 |
| HP-16:03JIS10 | 1992 | Oct-03 | 8,675 | MN043606 | 179 | 14,280 | 2,610 | 630 | 0 |
| HP-16:03JIS10 | 1992 | Oct-03 | 8,672 | KU869563 | 179 | 14,280 | 2,607 | 630 | 0 |
| HP-16:12JIS11 | 1992 | Nov-12 | 8,642 | MT582423 | 425 | <20 | 2,580 | 627 | 82 |
| HP-16:16JIS2 | 1992 | Feb-16 | 8,642 a | MW405280 | 501 | <20 | 2,580 | 624 | 141 |
| HP-17:93LSP3 | 1993 | Mar-93 | 8,657 | KJ140262 | 612 | >3,703 | 2,601 | 621 | 0 |
| HP-17:02LSP11 | 1993 | Nov02 | 8,660 | MN043607 | 66 | <3,703 | 2,604 | 621 | 17 on Td |
| HP-17:18LSP12 | 1993 | Dec-18 | 8,677 | MT582424 | 313 | 4,324 | 2,616 | 621 | 209 |
| HP-17:18LSP12 | 1993 | Dec-18 | 8,640 a | 17074 a | 313 | 4,324 | 2,579 | 621 | 209 |
| HP-17:18LSP12 | 1993 | Dec-18 | 8,631 a | 17076 a | 313 | 4,324 | 2,570 | 621 | 209 |
| HP-17:21LSP3 | 1993 | Mar-21 | 8,663 a | 17998 | 377 | <20 | 2606 | 621 | 236 |
| HP-17:21LSP3 | 1993 | Mar-21 | 8,666 a | 17999 | 377 | <20 | 2609 | 621 | 236 |
| HP-19:02LGS11 | 1993 | Nov-02 | 8,639 | KJ140264 | 352 | 1,721 | 2,550 | 636 | 18 |
| HP-19:19LGS8 | 1993 | Aug-19 | 8,615 | MT559062 | 1076 | <20 | 2,544 | 636 | 219 |
| HP-19:19LGS8 | 1993 | Aug-19 | 8,615 | MT559063 | 1076 | <20 | 2,544 | 636 | 219 |
| HP-19:21LGS1 | 1993 | Jan-21 | 8,619 a | 18012 | 888 | M20 | 2,547 | 636 | 236 |
| HP-20:02KJO10 | 1994 | Oct-02 | 8,711 | KJ140265 | 219 | 12,000 | 2,607 | 621 | 78 |
| HP-20:19KJO12 | 1994 | Dec-19 | 8,702 | MT559064 | 344 | <20 | 2,616 | 624 | 206 |
| HP-20:19KJO12 | 1994 | Dec-19 | 8,699 | MT559065 | 344 | <20 | 2,613 | 621 | 206 |
| HP-20:21KJO2 | 1994 | Feb-21 | 8,693 a | 18008 | 307 | <20 | 2,607 | 621 | 220 |
| 92KSS12 | 1992 | Dec-92 | 8,633 | MN043587 | 490 | 12,119 | 2,574 | 624 | 0 |
| 92CYK6 | 1992 | Jun-92 | 8,669 | MN043598 | 176 | 11,642 | 2,613 | 621 | 0 |
| 92JSH3 | 1992 | Mar-92 | 8,657 | MT101871 | 387 | 48,018 | 2,583 | 629 | 0 |
| 92KYY3 | 1992 | Mar-92 | 8,618 | MN043579 | 975 | 21,341 | 2,553 | 630 | 0 |
| 96KYY1 | 1992 | Jan-96 | 8,618 | MT877450 | 1155 | ND | 2,553 | 630 | 0 |
| 96KYY1 | 1992 | Jan-96 | 8,633 | MT877451 | 1155 | ND | 2,568 | 630 | 0 |
| 07KYY4 | 1992 | Apr-07 | 8,633 | JQ341411 | 921 | 2,001 | 2,568 | 630 | 0 |
| 12KYY10 | 1992 | Oct-12 | 8,633 | KF561440 | 805 | 9,600 | 2,568 | 630 | 0 |
| 12KYY10 | 1992 | Oct-12 | 8,654 | KF561441 | 805 | 9,600 | 2,589 | 630 | 0 |
| 13KYY2 | 1992 | Feb-13 | 8,660 | MW405286 | 919 | 7,780 | 2,595 | 630 | 0 |
| 13KYY2 | 1992 | Feb-13 | 8,672 | MW405285 | 919 | 7,780 | 2607 | 630 | 0 |
| 13KYY7 | 1992 | Jul-13 | 8,645 | MK871374 | 864 | 10,000 | 2,580 | 630 | 0 |
| 14KYY6 | 1992 | Jun-14 | 8,696 | MT877455 | 855 | 14,900 | 2,631 | 630 | 0 |
| 17KYY5 | 1992 | May-17 | 8,651 | MG461319 | 778 | 34,000 | 2,586 | 630 | 0 |
|  | 1992 | May-17 | 8,693 | MG461320 | 778 | 34,000 | 2,628 | 630 | 0 |
| 17KYY10 | 1992 | Oct-17 | 8,660 | MG461321 | 568 | 18,845 | 2,595 | 630 | 0 |
|  | 1992 | Oct-17 | 8,663 | MG461322 | 568 | 18,845 | 2,598 | 630 | 0 |
| 19KYY9 | 1992 | Sep-19 | 8,685 | MT877452 | 836 | <20 | 2,619 | 630 | 19 |
| 20KYY11 | 1992 | Nov-20 | 8,667 a | MW405288 | 1113 | <20 | 2601 | 630 | 33 |
| 93JIJ6 | 1992 | Jun-93 | 8,660 | MN237646 | 322 | 5,716 | 2,598 | 630 | 0 |
| Donor R | 1992 | Jun-92 | 8,657 | MN237644 | 511 | 14,748 | 2,589 | 633 | 0 |
| 93KJK4 | 1992 | Apr-93 | 8,668 | MN237645 | 177 | 5,230 | 2,613 | 621 | 0 |
| 93KYR2 | 1993 | Feb-93 | 8,603 | MN043580 | 476 | 11,318 | 2,544 | 624 | 0 |
| 04KYR8 | 1993 | Aug 04 | 8,633 | DQ295196 | 343 | 31900 | 2,571 | 624 | 0 |
| 04KMH5 | 1993 | May-04 | 8,639 | DQ295193 | 454 | 14,655 | 2,562 | 642 | 0 |
| 05YJN2 | 1996 | Feb-05 | 8,648 | JQ316134 | 640 | 29,200 | 2,586 | 627 | 0 |
| 04LHS6 | 2001 | Jun-04 | 8,630 | AY839827 | 566 | 1,300 | 2,574 | 627 | 48 |
| 28 Non-KSB subtypes | | | | | | | | | |
| 91CSR4 | 1987 | Apr-91 | 8,609 |  | 384 | ND | 2,553 | 612-621 | 0 |
| 99CSR10 | 1987 | Oct-99 | 8,669 | MW405290 | 105 | 22,452 | 2,613 | 612 | 0 |
|  | 1987 | Oct-99 | 8,669 a | MW405291 | 105 | 22,452 | 2,613 | 612 | 0 |
| 00CSR3 | 1987 | Mar-00 | 8,675 a | 17836 | 136 | 10,838 | 2,619 | 612 | 0 |
|  | 1987 | Mar-00 | 8,627 a | 17837 | 136 | 10,838 | 2,571 | 612 | 0 |
|  | 1987 | Mar-00 | 8,690 a | 17838 | 136 | 10,838 | 2,634 | 612 | 0 |
| 04CSR10 | 1987 | Oct-04 | 8,678 a | 17839 | 189 | 26,900 | 2,622 | 612 | 0 |
| 05CSR3 | 1987 | Mar-05 | 8,657 | DQ837381 | 117 | 26,900 | 2,606 | 612 | 0 |
| 07CSR1 | 1987 | Jan-07 | 8,699 | MW405330 | 126 | 20,475 | 2,652 | 612 | 0 |
|  | 1987 | Jan-07 | 8,699 a | MW405293 | 126 | 20,475 | 2,652 | 612 | 0 |
|  | 1987 | Jan-07 | 8,675 a | MW405294 | 126 | 20,475 | 2,628 | 612 | 0 |
| 11CSR3 | 1987 | Mar-11 | 8,738 | MW405332 | 119 | 73,800 | 2,685 | 618 | 0 |
| 11CSR3 | 1987 | Mar-11 | 8,714 | MW405331 | 119 | 73,800 | 2,661 | 618 | 0 |
| 12CSR12 | 1987 | Dec-12 | 8,633 | MW405333 | 225 | 179,800 | 2,580 | 618 | 0 |
| 15CSR6 | 1987 | Jun-15 | 8,594 | MW405335 | 3 | 69,600 | 2,557 | 618 | 0 |
| 15CSR6 | 1987 | Jun-15 | 8,657 | MW405334 | 3 | 69,600 | 2,618 | 618 | 0 |
| 15CSR6 | 1987 | Jun-15 | 8,621 | MW405296 | 3 | 69,600 | 2,583 | 618 | 0 |
| 15CSR8 | 1987 | Aug-15 | 8,603 | MW405336 | 2 | ND | 2,580 | 615 | 0 |
| 15CSR8 | 1987 | Aug-15 | 8,645 a | MW405298 | 2 | ND | 2,622 | 615 | 0 |
| 16CSR7 | 1987 | Jul-16 | 8,630 | MW405337 | 135 | <20 | 2,580 | 615 | 11 |
| 93MHI10 | 1988 | Oct-93 | 8,598 | MW405338 | 913 | <400 | 2,547 | 621 | 0 |
| 04MHI10 | 1988 | Oct-04 | 8,609 | JQ316137 | 574 | 821 | 2,547 | 621 | 0 |
| 07MHI10 | 1988 | Oct-07 | 8,612 | JQ316136 | 574 | 49,800 | 2,550 | 621 | 0 |
| 08MHI11 | 1988 | Nov-08 | 8,606 | JQ316138 | 1,154 | ND | 2,544 | 621 | 0 |
| 12MHI6 | 1988 | Jun-12 | 8,636 | MT877447 | 504 | 5,240 | 2,574 | 621 | 0 |
| 12MHI11 | 1988 | Nov-12 | 8,636 | KF561436 | 640 | ND | 2,574 | 621 | 0 |
| 12MHI11 | 1988 | Nov-12 | 8,663 | KF561437 | 640 | ND | 2,601 | 621 | 0 |
| 13MHI6 | 1988 | Jun-13 | 8,633 | KF561438 | 382 | 12,200 | 2,571 | 621 | 0 |
| 13MHI6 | 1988 | Jun-13 | 8,633 | KF561439 | 382 | 12,200 | 2,571 | 621 | 0 |
| 19MHI12 | 1988 | Dec-19 | 8,636 | MT877448 | 1,149 | <20 | 2,602 | 621 | 76 |
| 94KBH10 | 1992 | Oct-94 | 8,615 | 17941 | 280 | 781 | 2,574 | 609 | 0 |
| 95KBH4 | 1992 | Apr-95 | 8,606 | MW405339 | 344 | 781 | 2,565 | 609 | 0 |
| 95KBH4 | 1992 | Apr-95 | 8,615 | MW405340 | 344 | 781 | 2,574 | 609 | 0 |
| 01KBH3 | 1992 | Mar-01 | 8,576 | MW405341 | 450 | 1,571 | 2,535 | 609 | 0 |
| 01KBH7 | 1992 | Jul-01 | 8,569 | 17942 | 892 | 1,571 | 2,530 | 609 | 0 |
| 03KBH1 | 1992 | Jan-03 | 8,573 | MW405342 | 370 | 35,800 | 2,526 | 609 | 0 |
| 03KBH1 | 1992 | Jan-03 | 8,579 | MW405343 | 370 | 35,800 | 2,538 | 609 | 0 |
| 04KBH8 | 1992 | Aug-04 | 8,570 | DQ054367 | 473 | 35,800 | 2,529 | 609 | 0 |

KSB; Korean subclade of subtype B, mo; month, y; year, Td; two drug combination therapy, cART; combinational antiretroviral therapy, ND; no data. HP: hemophiliacs. Near full-length and *env* gene; from *gag* gene to *nef* gene and *env* sequence length, respectively. a ; FL is the presumed length based on only the sequence lengths of *env* and *nef* gene as other genes are normal size. b; The longest *nef* gene was 651-bp in 3 patients (89-17, HP-4 and HP-15) except a 799-bp with duplication of 77-bp and insertion of COA 1 homolog (71-bp) in patient PJA. c; contains a gross deletion.