





**Figure S2. Factors associated with the coreceptor usage of HIV-1 isolates in Northeast China.** Correlation analyses between FPR value and CD4 cell count (A), the numbers of net charges (B), positive charges (C) and PNGSs (D) in V3 region and the amino acid length (E), the numbers of PNGSs (F), positive (G) and negative (H) charges in V4 region were done.  $r$ , correlation coefficient.

**Table S1 Genotype and risk group distribution of Jilin viruses**

	Sampling year [case (%)]				Total ( <i>n</i> = 310)
	Before 2007 ( <i>n</i> = 39)	2007 ( <i>n</i> = 3)	2010-2012 ( <i>n</i> = 172)	2015-2016 ( <i>n</i> = 96) <sup>a</sup>	
<b>Genotype</b>					
CRF01_AE <sup>b</sup>	0 (0.0)	0 (0.0)	92 (53.5)	64 (66.7)	156 (50.3)
Subtype B	39 (100)	1 (33.3)	35 (20.4)	5 (5.2)	80 (25.8)
CRF07_BC/CRF08_BC/ C	0 (0.0)	0 (0.0)	26 (15.1)	18 (18.7)	44 (14.2)
CRF02_AG	0 (0.0)	0 (0.0)	5 (2.9)	0 (0.0)	5 (1.6)
URF <sup>c</sup>	0 (0.0)	2 (66.7)	14 (8.1)	9 (9.4)	25 (8.1)
<b>Risk group</b>					
MSM <sup>d</sup>	0 (0.0)	1 (33.3)	96 (55.8)	70 (72.9)	167 (53.9)
Heterosexual	0 (0.0)	1 (33.3)	60 (34.9)	11 (11.5)	72 (23.3)
Bisexual	0 (0.0)	0 (0.0)	0 (0.0)	2 (2.1)	2 (0.6)
Nosocomial	0 (0.0)	0 (0.0)	10 (5.8)	0 (0.0)	10 (3.2)
IDU <sup>e</sup>	0 (0.0)	0 (0.0)	4 (2.3)	0 (0.0)	4 (1.3)
Mother-to-child	0 (0.0)	0 (0.0)	1 (0.6)	0 (0.0)	1 (0.3)
Unknown	39 (100)	1 (33.4)	1 (0.6)	13 (13.5)	54 (17.4)

<sup>a</sup>, viruses identified in this study; <sup>b</sup> CRF, circulating recombinant form; <sup>c</sup> URF, unique recombinant form; <sup>d</sup> MSM, men who have sex with men; <sup>e</sup>

IDU, intravenous drug user.

**Table S2 Clinical and phylogenetic data of 96 newly identified Jilin samples in this study**

Sequence name	Sampling year	Gender	Age	Risk Factor	CD4 count (per µL)	Viral load (per mL)	Co-infection	Fiebig stage	HIV infection status *	Genbank number of gag gene	Genbank number of env gene	genotype (gag : HXB2 nt836-1507)	genotype (env : HXB2 nt7002-7541)	Subtype**	Env V3 sequence	FPR***	Env V4 sequence
JL15001	2015	Male	27	Hetero	403	1370000	NR	II	Recent infection	MH119979	MH120075	CRF01_AE	CRF01_AE	CRF01_AE	CTRPSNNTRTSIRIGPGQMFRYRTGDIVDIRKAYC	24.7	CDTTKLFNSTENGLTSLKSDTILPC
JL15002	2015	Male	40	MSM	439	48200	NR	I	Recent infection	MH119980	MH120076	CRF07_BC	B	URF BC	CTRPNKKTRKRITTPGGRVYYTTGVEIGDIRQAHC	0	CKSTQLFNSTWAGNNTWNSSAERSDDTGGNTILPC
JL15003	2015	Male	29	MSM	16	20800	NR	III	Long-term infection	MH119981	MH120077	CRF01_AE	CRF01_AE	CRF01_AE	CTRPSNNTRQSIRIGPGQMFRRTGDIIDPRQAYC	78.1	CNTTKLFNSTEDGTRERFNETILPC
JL15004	2015	Female	47	Hetero	244	87600	NR	I	Recent infection	MH119982	MH120078	CRF01_AE	CRF01_AE	CRF01_AE	CTRPSNNTRTSVSIIGPGQAFYRTGDIIDIRQAYC	76.9	CNTTKLFNSTWEGNETMGSSNNNGTILPC
JL15005	2015	Male	56	MSM	158	72400	NR	I	Recent infection	MH119983	MH120079	CRF01_AE	CRF01_AE	CRF01_AE	CTRPSNNTRTSIGIGPGRIFYRTGDIIDIRQAFC	4.8	CNTSRLFNSTWIGNETREEGNNNATILPC
JL15006	2015	Male	19	MSM	396	1080000	NR	I	Recent infection	MH119984	MH120080	CRF01_AE	CRF01_AE	CRF01_AE	CTRPSNNTRTSIRIGPGQVFYRTGDIIDIRKAYC	2.8	CNTTKLFNSTENGLTEGNSNTILPC
JL15007	2015	NR	21	Hetero	104	82000	NR	III	Long-term infection	MH119985	MH120081	B	B	B	CTRPNNNTRKSIQLVGGRSYATGDIIDIRQAHC	17.9	CNTTKLFNYTLQDNETWQGSNNKSVITLPC
JL15008	2015	Male	20	NR	173	125000	NR	III	Recent infection	MH119986	MH120082	CRF01_AE	CRF01_AE	CRF01_AE	CTRPSNNTRKSITIGPGQMFRYRTGDIIDIRQAFC	49.7	CNTSKLFNSTWYKNGTMEGLNGTINGTILPC
JL15009	2015	Male	40	MSM	30	829500	NR	I	Long-term infection	MH119987	MH120083	CRF01_AE	CRF01_AE	CRF01_AE	CTRPNNNTRIGISTGPRVYYRTGDIIDIRKAYC	1.7	CNTSKLFNSTWTGNETKQNGTDPILPC
JL15010	2015	Male	23	MSM	313	96400	NR	I	Recent infection	MH119988	MH120084	CRF07_BC	CRF07_BC	CRF07_BC	CTRPGNNTRKSIRIGPGQTFYATGDIIDIRQAHC	69.8	CNTSSLFNGTYNATD-NDTASNATTIQC
JL15011	2015	Male	27	MSM	217	78700	NR	I	Recent infection	MH119989	MH120085	CRF01_AE	CRF07_BC	URF 0107	CTRPNNNTRKSIRIGPGQTFYATGAIIDIRQAHC	70.6	CNTSGLFNSTYMPNGTFNDTGDNSTITIQC
JL15012	2015	Male	21	MSM	355	59700	NR	I	Recent infection	MH119990	MH120086	CRF07_BC	CRF07_BC	CRF07_BC	CTRPGNNTRKSIRIGPGQTFYATGEIIGDIRQAHC	57	CNTSGLFNSTYMTNGTFNFSGTGNDSTITIPC
JL15013	2015	Male	45	MSM	351	31300	NR	I	Recent infection	MH119991	MH120087	CRF01_AE	CRF01_AE	CRF01_AE	CTRPSNNTRKSINIGPGQAFYRTGDIIDIRQAFC	82.4	CNTTKLFSGNVTEGNTLHNSGTINGTILPC
JL15014	2015	Male	29	MSM	364	526000	NR	I	Long-term infection	MH119992	MH120088	CRF01_AE	CRF01_AE	CRF01_AE	CTRPSNNTRTSIRIGPGQVFYRTGDIIDIRKAYC	6.8	CNTTKLFSSTENGLTEGNSNTILPC
JL15015	2015	Male	52	MSM	95	116200	NR	I	Long-term infection	MH119993	MH120089	CRF01_AE	CRF07_BC	URF 0107	CTRPNNNTRKSIRIGPGQTFYATGDIIDIRQAHC	83	CNTSGLFNSTYNSDNGKNDSSISIPC
JL15016	2015	Male	19	MSM	308	416000	NR	I	Recent infection	MH119994	MH120090	CRF01_AE	CRF01_AE	CRF01_AE	CTRPSNNTRTSITIGPGTFYRTGEIIGNIRQAYC	55.8	CNTTKLFNSTGGNTRGNNGTILPC
JL15017	2015	Male	26	MSM	173	1011000	NR	III	Recent infection	MH119995	MH120091	CRF01_AE	CRF01_AE	CRF01_AE	CTRPSNNTRTSIKFPGRMFRYRTGAIIDIRKAYC	4	CNTTKLFNSTENGLTEGNTILPC
JL15018	2015	Male	40	MSM	79	1139800	NR	I	Long-term infection	MH119996	MH120092	CRF01_AE	CRF01_AE	CRF01_AE	STRPSTNTRTSITIGPGQVLFRTGAVVGDVVMAYC	77.2	FNTTKNSCTNSGTIEGTGTNGTILPC
JL15019	2015	Male	25	MSM	490	403000	NR	I	Recent infection	MH119997	MH120093	CRF07_BC	CRF07_BC	CRF07_BC	CTRPGNNTRKSIRIGPGQTFYATGDIIDIRQAHC	69.8	CNTSGLFNSTFNSTYTHNETDNGTITIPC
JL15020	2015	Male	48	Hetero	25	229000	NR	III	Long-term infection	MH119998	MH120094	CRF01_AE	CRF01_AE	CRF01_AE	CTRPSNNTRTSIHMGPQTFYRTGDIIDIRKAYC	89.1	CNTTKLFNSTWKGTETRNETIGNTTIQGNTIIPC
JL15021	2015	Male	32	MSM	255	8100	NR	I	Recent infection	MH119999	MH120095	B	B	B	CTRPNNNTRRSINIGPGAFYATGDIIDIRQAHC	63.1	CNTSKLFNSTWNSQLNSNGTEGNDTTPISLPC
JL15022	2015	Male	NR	MSM	NR	NR	NR	NR	Recent infection	MH120000	MH120096	CRF01_AE	CRF07_BC	URF 0107	CTRPGNNTRKSIRIGPGQTFYATGEIIGDIRQAHC	57	CDTSGLFNSTRHPNGTFNGTEDNSTITIQC
JL15023	2015	Male	29	MSM	339	89500	NR	I	Recent infection	MH120001	MH120097	CRF07_BC	CRF07_BC	CRF07_BC	CTRPNNNTRKSIRIGPGQTFYATGGIIGDIRQAYC	59.2	CNTSGLFNSTYMHNGTFKIEWSVI-INTEGNSTIKLPC
JL15024	2015	NR	NR	NR	NR	NR	NR	NR	Long-term infection	MH120002	MH120098	CRF07_BC	CRF07_BC	CRF07_BC	CTRPGNNTRKSIRIGPGQTFYATGDIIDIRQAHC	69.8	CNTSGLFNSTYNTSTFN-Q92TGSNSTIIPC
JL15025	2015	NR	38	NR	716	7500	NR	I	Recent infection	MH120003	MH120099	B	B	B	CIRPNNNTRKSIQLAGGRALYATGDIIDIRQAHC	77.6	CNTTKLFNYTFNDNISENTLNTSANITLPC
JL15026	2015	Male	34	MSM	428	188000	NR	I	Recent infection	MH120004	MH120100	CRF01_AE	CRF01_AE	CRF01_AE	CTRPSNNVTRTSIHIGPGRIFYRTGDIIGNIRQAYC	29.1	CNTTKLFNSNTGGDNDTILPC
JL15027	2015	NR	20	NR	411	208000	NR	II	Recent infection	MH120005	MH120101	CRF07_BC	CRF07_BC	CRF07_BC	CTRPGNNTRKSIRIGPGQTFYATGDIIDIRQAHC	69.8	CNTSSLFNSTYMTNGTFKFNNDTFNGTESNSTIIPC
JL15028	2015	NR	46	NR	95	59600	NR	III	Long-term infection	MH120006	MH120102	CRF01_AE	CRF01_AE	CRF01_AE	CTRPSNNTRTSVPMGPGRAFYRTGDIIDIRQAYC	9.6	CNTTKLFNSTWENDTMEVGNNGTNNNGTILPC
JL15029	2015	Male	21	Sexual	764	87100	NR	I	Recent infection	MH120007	MH120103	CRF07_BC	CRF07_BC	CRF07_BC	CTRPGNNTRKSIRIGPGQTFYATGAIIDIRRAHC	13.2	CNTSGLFNSTYMPNGTFNAPNGTNDSTIIPC
JL15030	2015	Male	28	MSM	707	<1000	NR	I	Recent infection	MH120008	MH120104	CRF01_AE/B	CRF07_BC	URF 01BC	CTRPNNNTRKSIRIGPGQTFYATGEVIGDIRQAHC	63.1	CNTTGLFNSTYMTSGLSNDTNSSTIIPC
JL15031	2015	NR	55	Sexual	95	456100	NR	III	Long-term infection	MH120009	MH120105	CRF01_AE	CRF01_AE	CRF01_AE	CIRPFSTIRTSIRIGPVQVFRHTGGTGVIGKAHC	0.2	CNTTKLFNTEITFEFNSTDNGTMEGNITLPC
JL15032	2015	Male	34	MSM	129	82200	NR	I	Recent infection	MH120010	MH120106	CRF01_AE	CRF01_AE	CRF01_AE	CTRPSNNTRTSIRIGPGQTFYRTGDIIDIRKAYC	9	CNTTKLFNGTTEESNDTILPC
JL15033	2015	Male	56	MSM	399	185000	NR	I	Long-term infection	MH120011	MH120107	CRF01_AE	CRF01_AE	CRF01_AE	CIRPSNNTRRESIRIGPGQMFRYRTGAIIGNIREAHC	87.8	CNTTQLFNRTKTEGLENTTILPC
JL15034	2015	Male	30	NR	162	67100	NR	III	Long-term infection	MH120012	MH120108	CRF01_AE	CRF01_AE	CRF01_AE	CTRPSNNTRTSISLGPQVFYRTGDIIDIRLAYC	10.1	CNTTKLFNSTWPRNHTNGGNGNTILPC

JL15035	2015	Male	33	MSM	112	178900	NR	III	Long-term infection	MH120013	MH120109	CRF01_AE	CRF01_AE	CRF01_AE	CTRPYNNTRTSVHIGPGRAFXYKTGDIIGDIRQAYC	2.8	CNTTKLFNSNRKNGTVEGDINGTTILPC
JL15036	2015	Male	27	MSM	58	69600	NR	III	Long-term infection	MH120014	MH120110	CRF01_AE	CRF01_AE	CRF01_AE	CIRPSNNTRTSIRIGPGQMFYRTGEITGDIRKAYC	19.1	CNTTKLFNSTENGTFRENTTILPC
JL15037	2015	Male	24	MSM	152	54500	NR	I	Recent infecion	MH120015	MH120111	CRF01_AE	CRF01_AE	CRF01_AE	CARPYNNTRTSTRIGPGQMFYRTGEIIGNIRQAYC	1.7	CNTTKLFNTTKNGTMEGLNGTILPC
JL15038	2015	Male	23	MSM	264	86900	NR	I	Recent infecion	MH120016	MH120112	CRF01_AE	CRF01_AE	CRF01_AE	CTRPSNNTRSSIPMGPRGVFYRTGDIIGNIRQAHC	56.9	CNTTKLFNSTWNETMEGGNNNDTGKDDTILPC
JL15039	2015	Male	NR	NR	NR	NR	NR	NR	Recent infecion	MH120017	MH120113	CRF01_AE	CRF01_AE	CRF01_AE	CTRPNNNTRTSTPIGPGGAFFKTGDIIGDIRQAYC	8.2	CNTSKLFNSTWNGTQEIGKGDNDTIVLPC
JL15040	2015	NR	NR	NR	NR	NR	NR	NR	Recent infecion	MH120018	MH120114	CRF01_AE	CRF01_AE	CRF01_AE	CTRPSNNTRTSTRIGPGQVFYRTGSIIGDIRKAHC	2.9	CNTTKLFKGTENGTEESNATILPC
JL15041	2015	NR	NR	NR	NR	NR	NR	NR	Long-term infection	MH120019	MH120115	CRF01_AE	CRF01_AE	CRF01_AE	CTRPSNNTRTSTRFPGQMFYRTGDIIGDIRKAYC	5.4	CNTTKLFNTINETLVGNNTSNTTILPC
JL15042	2015	Male	27	NR	11	498000	NR	III	Long-term infection	MH120020	MH120116	CRF01_AE	CRF01_AE	CRF01_AE	CTRPSNNTRKSTSIGPGQVFYRTGDIIGDIRKAYC	5.3	CNTTKLFNTTENGTTTEGLNGTILPC
JL15043	2015	NR	NR	NR	NR	NR	NR	NR	Recent infecion	MH120021	Not available	CRF07_BC	Not obtained	CRF07_BC	Not available	Not available	Not available
JL16001	2016	NR	35	Sexual	139	58900	NR	I	Recent infecion	MH120022	MH120117	CRF01_AE	CRF01_AE	CRF01_AE	CTRPSNNTRTSSISIGPGAFYRTGDIIGDIRQAF	14.3	CNTTKLFNSTWNRKWNHNTDSGNKSDTITLPC
JL16002	2016	Male	25	MSM	441	31300	NR	I	Long-term infection	MH120023	MH120118	CRF01_AE	CRF01_AE	CRF01_AE	CTRPYNNTRTSSISIGPGSFLSRTGDIIGDLRQAYC	1.7	CNTTKMFNNAGSNGTILPC
JL16003	2016	Male	35	MSM	386	157000	NR	I	Recent infecion	MH120024	Not available	CRF01_AE	Not obtained	CRF01_AE	Not available	Not available	Not available
JL16004	2016	Male	39	MSM	25	121000	HBV	IV	Long-term infection	MH120025	MH120119	B	B	B	CTRPNNNTRKSIHLGGQAWYATGDIIGDIRQAHC	38.5	CNTSQLFNSTWDNNTWNTNDTWNNTSNTATLPC
JL16005	2016	Male	21	MSM	413	243000	NR	I	Long-term infection	MH120026	MH120120	CRF01_AE	CRF01_AE	CRF01_AE	CTRPSNNTRTSINIGPGAFYRIGDITGDIRQAYC	55	CNTTKLFNSTWKGNETREEGNSDTILPC
JL16006	2016	Male	52	MSM	327	37200	NR	I	Long-term infection	MH120027	MH120121	CRF01_AE	CRF01_AE	CRF01_AE	CTRPSNNTRTSIQIGPGQAFKDTGDIIGDKQAYC	94.6	CNTTKLFNSTWTGNETINGDNDTILPC
JL16007	2016	Male	25	MSM	245	11200	NR	I	Recent infecion	MH120028	MH120122	CRF07_BC	CRF07_BC	CRF07_BC	CTRPNNNTRKSIRIGPGQTFYATGDIIGDIRQAHC	83	CNTSGLFNFTFMSNSTFNGTESNSTITPC
JL16008	2016	Male	20	MSM	277	297000	NR	I	Recent infecion	MH120029	MH120123	CRF01_AE	CRF01_AE	CRF01_AE	CTRPYNNTRTSIRIGPGQVYRTGEITGDIRSAYC	8.2	CNTTKLFNGTENGTRIANHTIPC
JL16009	2016	Male	39	MSM	657	18400	NR	I	Long-term infection	MH120030	MH120124	CRF01_AE	CRF01_AE	CRF01_AE	CTRPSNNTRTSSVIGPGAAFIYRTGDIIGDIRQAYC	64.3	CNTTKLFNTTMTFNTRNTKITILPC
JL16010	2016	Male	56	MSM	452	30600	NR	III	Long-term infection	MH120031	MH120125	CRF01_AE	CRF01_AE	CRF01_AE	CTRPNNNTRTSTRIGPGQVFYRTGEIIGDIRKASC	1.8	CNTTQLFNSTQNETLGEYNDTITLPC
JL16011	2016	Male	24	MSM	432	145000	NR	I	Recent infecion	MH120032	MH120126	CRF01_AE	CRF01_AE	CRF01_AE	CTRPNNNTRKSTRIGPGQMFYRTGEIIGDIRKAYC	2.4	CNTTQLFNSTELFNGTREGNITLPC
JL16012	2016	Male	19	MSM	465	196000	NR	I	Recent infecion	MH120033	MH120127	CRF01_AE	CRF07_BC	URF 0107	CTRPNNNTRKSIRIGPGQTFYATGDIIGDIRQAHC	69.8	CNTSGLFNSTYMSNGTLNGTENNLTITPC
JL16013	2016	Male	35	MSM	313	30200	NR	I	Recent infecion	MH120034	MH120128	CRF01_AE/B	CRF01_AE	URF 01B	CTRPSNNTRTSSVIRIGPGQMFYRTGEIIGDIRKAYC	20.4	CNTTKLFNGTENGTEEFNGTNGTILPC
JL16014	2016	Male	59	MSM	66	1340000	NR	I	Long-term infection	MH120035	MH120129	CRF01_AE	CRF01_AE	CRF01_AE	CTRPSNNIRISTRIGPGQVFYRTGDIIGDIRKAYC	1.7	CNTSKLFNTTNGTLDGSVNATILPC
JL16015	2016	Male	36	MSM	331	211000	NR	I	Recent infecion	MH120036	MH120130	CRF01_AE	CRF01_AE	CRF01_AE	CSRPSNNTRTSISFAPGQSFYKTGEIIGDIRQAYC	68.6	CNTSKLFNSTWRGNETKKNNDTGTHILPC
JL16016	2016	Male	74	Bisexual	265	216000	NR	I	Long-term infection	MH120037	MH120131	CRF01_AE	CRF01_AE	CRF01_AE	CTRPSNNTRTSTRIGPGQVFYRTGEIIGNIRKAYC	2.6	CNTTKLFNGTGNNGINGTILPC
JL16017	2016	Male	56	Bisexual	18	117000	NR	III	Long-term infection	MH120038	MH120132	CRF01_AE	CRF01_AE	CRF01_AE	CTRPSNNTRTSSISMGPGRFYRTGDIIGDIRQAYC	21	CNTSGLFNSTWRNGTEGNSTDPILPC
JL16018	2016	Male	31	MSM	451	90100	NR	I	Recent infecion	MH120039	MH120133	CRF07_BC	CRF07_BC	CRF07_BC	CMRPNNNTRKSIRIGPGQTFYATGEIIGNIRQAHC	8.2	CNTSGLFNKTYMSNSTFVNKENTSITVPC
JL16019	2016	Male	29	MSM	423	71200	NR	I	Recent infecion	MH120040	MH120134	CRF01_AE	CRF07_BC	URF 0107	CTRPNNNTRKSIRIGPGQTFYATGDIIGDIRQAHC	83	CNTSGLFNNSLNNSTSNSTESNTITIQ
JL16020	2016	Male	23	MSM	276	134200	NR	I	Recent infecion	MH120041	MH120135	CRF01_AE	CRF01_AE	CRF01_AE	CTRPSNNTRTSSVIGLGRAWYRTGDIIGDIRQAYC	8.5	CNTTKLFNSSNNRNTGGNDTHILPC
JL16021	2016	Male	39	MSM	257	57500	NR	I	Recent infecion	MH120042	MH120136	CRF01_AE	CRF01_AE	CRF01_AE	CTRPSNNIRISRIHIGPGAFRTGDIIGDIRQAYC	0.7	CNTTKLFNSTWTGNETETMEEGNDTILPC
JL16022	2016	Male	28	MSM	163	1170000	NR	I	Recent infecion	MH120043	MH120137	CRF01_AE	CRF01_AE	CRF01_AE	CTRPSNNTRTSSISLPGRTFYRTGDIIGDIRQAYC	41.2	CNTTKLFNSTWKGNETKGNNDTILPC
JL16023	2016	Male	51	MSM	44	78300	NR	III	Long-term infection	MH120044	MH120138	CRF01_AE	CRF01_AE	CRF01_AE	CTRPNNNTRTSLNIGPGQAFYRTGDIIGDIRQAF	7.1	CNTTKLFNSTWINETSGYNDTGPIILPC
JL16024	2016	Male	22	MSM	447	18100	NR	II	Recent infecion	MH120045	MH120139	CRF01_AE	CRF01_AE	CRF01_AE	CTRPSNNTRKSTSIGPGQVFYRTGDIIGDIRQAYC	13.8	CNTTKLFNSTWTGNSTIKGNNDTILPC
JL16025	2016	Male	29	MSM	416	235000	NR	I	Recent infecion	MH120046	Not available	CRF01_AE	Not obtained	CRF01_AE	Not available	Not available	Not available
JL16026	2016	Male	58	MSM	124	6900	NR	I	Recent infecion	MH120047	MH120140	CRF01_AE	CRF01_AE	CRF01_AE	CTRPSNNTRTSMITIGPGQTFYRTGDIIGDIRQAF	90.7	CNTSKLFKVIINGTGVNRDVTNGTILPC
JL16027	2016	Male	23	MSM	549	47100	NR	I	Long-term infection	MH120048	MH120141	CRF01_AE	CRF01_AE	CRF01_AE	CTRPSNNTRTSSIMHGGPQAFYRTGDIIGDIRQAYC	44.2	CNTSKLFNSTWYGNETREEDNANGTILPC
JL16028	2016	Male	24	MSM	570	91500	NR	I	Recent infecion	MH120049	MH120142	CRF01_AE	CRF01_AE	CRF01_AE	CTRPSNNIRTSFRIGPGQVFYRTGAIIGDIRKAYC	1.3	CNTTKLFDSTWRTEVKTIGDNTTILPC
JL16029	2016	Male	39	Hetero	524	18200	NR	I	Recent infecion	MH120050	MH120143	CRF01_AE	CRF01_AE	CRF01_AE	CTRPSNNTRTSSVIGPGQTFYRTGDIIGDIRQAYC	91.3	CNTTKLFNSTWRGNETMETGNNSTAILPC

JL16030	2016	Male	18	MSM	297	81800	NR	I	Long-term infection	MH120051	MH120144	CRF07_BC	CRF07_BC	CRF07_BC	CTRPNNNTRKSIRIGPGQTFYATGDIIGDIRQAYC	78.8	CNTSKLFNGTYNGTSNSNSTIVIPC
JL16031	2016	Male	49	MSM	309	496000	NR	I	Recent infecion	MH120052	MH120145	CRF07_BC	CRF07_BC	CRF07_BC	CTRPNNNTRKSIRIGPGQTLATGEIIGDIREAHC	96.2	CNTSKLFNSTYKPNSTYNDKSNSSSYITIPC
JL16032	2016	NR	29	Hetero	427	47600	NR	I	Recent infecion	MH120053	MH120146	CRF07_BC	CRF07_BC	CRF07_BC	CTRPNNNTRKSIRIGPGQTFYATGGIIGDIRQAHC	74.3	CNTSGLFNSTYG-NGTFYMTNDTENDSSITIPC
JL16033	2016	Male	28	MSM	236	22100	NR	II	Recent infecion	MH120054	MH120147	CRF01_AE	CRF01_AE	CRF01_AE	CTRPNNNTRGSIRIGPGQVFYRTGEITGDIRKAYC	10.1	CNTTKLFNNAQNETNNTIIPC
JL16034	2016	NR	19	MSM	506	75000	NR	I	Recent infecion	MH120055	MH120148	CRF01_AE	CRF01_AE	CRF01_AE	CTRPNNNTRGITMGPGKTFYRTGDIIGDIRQAYC	51.8	CNTTKLFNNTGGNGTIIIPC
JL16035	2016	Male	32	MSM	268	39500	NR	I	Recent infecion	MH120056	MH120149	CRF01_AE	CRF01_AE	CRF01_AE	CTRPNNNTRTSIRIGPGQMFYRTGEIIGDIRKAYC	18.3	CNTTKLFNSTENGMEGLNGTIIIPC
JL16036	2016	Male	28	MSM	370	1800000	NR	I	Recent infecion	MH120057	MH120150	CRF07_BC	CRF07_BC	CRF07_BC	CTRPNNNTRKSIRIGPGQTFYATGEVIGDIRQAHC	45.4	CNTSGLFNSTFNSFTFNDFNDFNDRKNNITIPC
JL16037	2016	Male	36	Hetero	165	539800	NR	I	Recent infecion	MH120058	MH120151	CRF01_AE	CRF01_AE	CRF01_AE	CTRPNNNTRTSIRIGPGQTFYRTGEITGDIRKAYC	9	CNTTKLFNSTGGNSKEGNNNDTIIIPC
JL16038	2016	Male	43	MSM	72	48500	NR	III	Long-term infection	MH120059	MH120152	CRF07_BC	CRF07_BC	CRF07_BC	CTRPNNNTRKSIRIGPGQTFYATGEIIGNIRQAHC	84.6	CNTSGLFNSTYMQNGTFTFNTHINSTDNSSSVLVIPC
JL16039	2016	Female	34	Hetero	39	70800	NR	III	Long-term infection	MH120060	MH120153	CRF01_AE	CRF01_AE	CRF01_AE	CTRPNNNTRTSIHMGPQKAFYRTGDIIGDIRQAYC	16.9	CNTTKLFNSENNTEKGDINTIIPC
JL16040	2016	Male	22	MSM	145	183000	NR	III	Long-term infection	MH120061	MH120154	CRF01_AE	CRF01_AE	CRF01_AE	CTRPNNNTRTSIRIGPGQVFYRTGDIIGDIRKAYC	1.7	CNTTKLFNSTKNGTIEGTNGTIIIPC
JL16041	2016	Male	25	MSM	227	26800	NR	II	Recent infecion	MH120062	MH120155	CRF07_BC	CRF07_BC	CRF07_BC	CIRPGNNTRKSIRIGPGQTFYATGDIIGDIRQAHC	65.4	CNTSSLFNSTFQFNNETFNFTGNETSNTIIPC
JL16042	2016	Male	19	MSM	457	449000	NR	I	Recent infecion	MH120063	MH120156	CRF01_AE	CRF01_AE	CRF01_AE	CTRPNNNTRKSIRIGPGQTFYRTGDIIGDIRQAYC	46.1	CNTTKLFNSTWTGNESITEGNDNDTIIIPC
JL16043	2016	NR	27	Hetero	252	48000	NR	I	Recent infecion	MH120064	MH120157	CRF01_AE	CRF01_AE	CRF01_AE	CTRPNNNTRTSVIRIGPGQMFYRTGDIIGDIRKAYC	43.2	CDTTKLFNDTENEIMKGFNTIIPC
JL16044	2016	Male	29	MSM	274	13100	NR	I	Recent infecion	MH120065	MH120158	CRF01_AE	CRF01_AE	CRF01_AE	STRPCINTGTGITLGPAGALFGTGLIGNERKAYH	0	VYTTEGINNTGGNNNDTIIIPC
JL16045	2016	Male	41	MSM	164	116200	NR	III	Long-term infection	MH120066	MH120159	CRF01_AE	CRF01_AE	CRF01_AE	CTRPNNNTRTSIRIGPGQTFYATGEIIGDIRKAYC	13.2	CNTTKLFNSTENGTEGNDTIIIPC
JL16046	2016	Male	28	Hetero	242	22700	NR	I	Recent infecion	MH120067	MH120160	B	B	B	CIRPNNNTRRSINIGPGRAFAYATDIIIGDIRQAHC	57.1	CNTKQLFNSTWNSQLNSNDTGGNDTIIISLPC
JL16047	2016	Male	27	MSM	503	70800	NR	I	Recent infecion	MH120068	Not available	CRF07_BC	Not obtained	CRF07_BC	Not available	Not available	Not available
JL16048	2016	Male	75	MSM	390	5430	NR	I	Recent infecion	MH120069	MH120161	CRF07_BC	CRF07_BC	CRF07_BC	CTRPNNNTRKSIRIGPGQTFYATGDIIGDPRQAHC	44.6	CNTTILFNSTYYDIKINDTLKNITIPC
JL16049	2016	Male	24	MSM	505	183000	NR	I	Recent infecion	MH120070	MH120162	CRF01_AE	CRF07_BC	URF 0107	CIRPNNNTRKSIRIGPGQTFYATGDIIGDIRQAHC	84.9	CNTSGLFNSTYMSNGTFMFSNNTI-NDTESNTIIPC
JL16050	2016	Male	24	MSM	512	110000	NR	I	Recent infecion	MH120071	MH120163	CRF01_AE	CRF01_AE	CRF01_AE	CTRPNNNTRTSIRIGPGQTFYRTGDIIGDIRKAYC	44.5	CNTTKLFNGTENGTEGLNGTIIIPC
JL16051	2016	Male	36	MSM	726	2800	NR	I	Recent infecion	MH120072	MH120164	CRF01_AE	CRF01_AE	CRF01_AE	CTRPNNNTRTSINMGPGRAFAYRTGDIIGDIRQAYC	44.2	CNTTKLFNHTNENRNTIIPC
JL16052	2016	Male	22	MSM	376	8830	NR	I	Long-term infection	MH120073	MH120165	CRF01_AE	CRF01_AE	CRF01_AE	CTRPNNNTRTGIMHGPQKAFYRTGDIIGDIRQAYC	6.8	CNTTKLFNSTWKNGTMEEDKLNGLTIIIPC
JL16053	2016	Male	21	MSM	269	82200	NR	I	Recent infecion	MH120074	Not available	CRF01_AE	Not obtained	CRF01_AE	Not available	Not available	Not available

\* HIV infection status was determined by Limiting-Antigen Avidity (LAg-Avidity) assays. The recent infection indicated individuals acquired HIV infection within a mean time period of 130 days, and long-term infection indicated individuals acquired HIV infection over a mean time period of 130 days.

\*\* Subtype was determined by both gag and env genotypes. The subtypes of five samples lacking env genotype information was determined by the gag genotype alone.

\*\*\* FPR was the false positive rate in coreceptor prediction using online Geno2Pheno tool.

NR: not recorded; Hetero: heterosexual; MSM: male sex with male

**Table S3 Virological and clinical information of 214 Jilin reference sequences from HIV database**

Sequence Name	Genbank accession number	Subtype	Sampling Year	CD4 count	Gender	Risk Factor	Gene region
CNJL12	AY548241	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL13	AY548242	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL14	AY548243	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL16	AY548244	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL18	AY548281	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL19	AY548245	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL20	AY548246	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL21	AY548247	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL22	AY548248	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL27	AY548249	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL29	AY548250	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL3	AY548236	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL30	AY548282	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL31	AY548251	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL33	AY548289	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL35	AY548252	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL36	AY548283	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL38	AY548253	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL4	AY548237	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL40	AY548284	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL41	AY548254	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL43	AY548285	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL44	AY548255	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL46	AY548256	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL48	AY548257	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL50	AY548258	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL51	AY548286	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL53	AY548259	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL54	AY548260	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL55	AY548287	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL56	AY548261	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL57	AY548288	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL59	AY548262	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL6	AY548280	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL60	AY548263	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL61	AY548264	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL7	AY548238	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL8	AY548239	B	2004	Not recorded	Not recorded	Not recorded	pol
CNJL9	AY548240	B	2004	Not recorded	Not recorded	Not recorded	pol
JL070032	KC990127	01&07	2007	Not recorded	Male	Male Sex with Male	NFLG*
JL070038	JF932490	B	2007	Not recorded	Not recorded	Not recorded	NFLG
JL070009	KC990126	CRF61_BC	2007	Not recorded	Female	Heterosexual	NFLG
JL.RF01	KF850149	CRF96_cpx	2010	413	Male	Heterosexual	NFLG
JL.RF02	KF818774	01B	2010	Not recorded	Male	Male Sex with Male	env
JL.RF03	KJ184176	01&07	2010	Not recorded	Not recorded	Heterosexual	NFLG
JL.RF04	KF818776	01C	2010	Not recorded	Not recorded	Heterosexual	env
JL.RF05	KJ184177	01BC	2010	Not recorded	Not recorded	Heterosexual	NFLG
JL.RF06	KF818778	01C	2010	Not recorded	Not recorded	Heterosexual	env
JL.RF07	KF859773	01B	2010	Not recorded	Male	Male Sex with Male	NFLG
JL100005	JX112846	CRF01_AE	2010	Not recorded	Not recorded	Heterosexual	NFLG
JL100007	JX112847	CRF01_AE	2010	Not recorded	Male	Male Sex with Male	NFLG
JL100010	KC990124	CRF61_BC	2010	Not recorded	Male	Heterosexual	NFLG
JL100014	JX112848	CRF01_AE	2010	Not recorded	Not recorded	Heterosexual	NFLG
JL100020	JX112849	CRF01_AE	2010	Not recorded	Male	Male Sex with Male	NFLG
JL100021	KF818788	CRF01_AE	2010	Not recorded	Male	Male Sex with Male	gag
JL100022	KF818789	CRF01_AE	2010	Not recorded	Not recorded	Heterosexual	gag
JL100024	KF818790	C	2010	Not recorded	Male	Male Sex with Male	gag

JL100025	KF818791	CRF01_AE	2010	Not recorded	Male	Male Sex with Male	gag
JL100027	KF818663	CRF01_AE	2010	Not recorded	Male	Male Sex with Male	env
JL100032	KF818664	CRF01_AE	2010	Not recorded	Male	Male Sex with Male	env
JL100034	KF818665	CRF01_AE	2010	Not recorded	Male	Male Sex with Male	env
JL100035	KF818666	B	2010	Not recorded	Not recorded	Heterosexual	env
JL100036	KF818667	B	2010	Not recorded	Not recorded	Heterosexual	env
JL100037	KF818668	CRF01_AE	2010	Not recorded	Male	Male Sex with Male	env
JL100038	KF818669	CRF01_AE	2010	Not recorded	Male	Male Sex with Male	env
JL100039	KF818670	B	2010	Not recorded	Not recorded	Heterosexual	env
JL100040	KF818800	B	2010	Not recorded	Male	Male Sex with Male	gag
JL100041	KF818671	CRF01_AE	2010	Not recorded	Male	Male Sex with Male	env
JL100042	KF818672	CRF01_AE	2010	Not recorded	Male	Male Sex with Male	env
JL100043	KF818673	CRF01_AE	2010	Not recorded	Not recorded	Heterosexual	env
JL100044	KF818674	C	2010	Not recorded	Not recorded	Heterosexual	env
JL100047	KF818675	CRF01_AE	2010	Not recorded	Male	Male Sex with Male	env
JL100048	KF818676	C	2010	Not recorded	Male	Male Sex with Male	env
JL100049	KF818807	CRF01_AE	2010	Not recorded	Male	Male Sex with Male	gag
JL100050	KF818677	CRF01_AE	2010	Not recorded	Not recorded	Heterosexual	env
JL100051	KF818678	CRF01_AE	2010	Not recorded	Male	Male Sex with Male	env
JL100052	KF818679	CRF01_AE	2010	Not recorded	Male	Male Sex with Male	env
JL100053	KF818680	CRF01_AE	2010	Not recorded	Male	Male Sex with Male	env
JL100054	KF818681	CRF01_AE	2010	Not recorded	Male	Male Sex with Male	env
JL100055	KF818682	CRF01_AE	2010	Not recorded	Male	Male Sex with Male	env
JL100056	KF818683	CRF01_AE	2010	Not recorded	Male	Male Sex with Male	env
JL100057	KF818684	CRF01_AE	2010	Not recorded	Male	Male Sex with Male	env
JL100059	KF818685	CRF01_AE	2010	Not recorded	Male	Male Sex with Male	env
JL100063	KF818686	B	2010	Not recorded	Not recorded	Heterosexual	env
JL100064	KF818687	CRF01_AE	2010	Not recorded	Male	Male Sex with Male	env
JL100065	KF818688	C	2010	Not recorded	Male	Male Sex with Male	env
JL100066	KF818689	B	2010	Not recorded	Male	Male Sex with Male	env
JL100067	KF818820	CRF02_AG	2010	Not recorded	Not recorded	IV Drug User	gag
JL100068	KF818691	CRF01_AE	2010	Not recorded	Male	Male Sex with Male	env
JL100069	KF818692	CRF01_AE	2010	Not recorded	Not recorded	Heterosexual	env
JL100070	KF818823	C	2010	Not recorded	Male	Male Sex with Male	gag
JL100071	KF818693	C	2010	Not recorded	Male	Male Sex with Male	env
JL100073	KF818694	CRF01_AE	2010	Not recorded	Male	Male Sex with Male	env
JL100074	KF818695	B	2010	Not recorded	Not recorded	Heterosexual	env
JL100078	KF818697	C	2010	Not recorded	Not recorded	IV Drug User	env
JL100079	KF818698	CRF01_AE	2010	Not recorded	Male	Male Sex with Male	env
JL100084	KF818699	CRF02_AG	2010	Not recorded	Not recorded	Heterosexual	env
JL100085	KF818700	B	2010	Not recorded	Not recorded	Heterosexual	env
JL100087	KF818701	CRF01_AE	2010	Not recorded	Not recorded	Heterosexual	env
JL100088	KF818702	CRF02_AG	2010	Not recorded	Not recorded	Heterosexual	env
JL100090	KF818703	B	2010	Not recorded	Not recorded	Heterosexual	env
JL100091	KF011493	BC	2010	Not recorded	Female	Heterosexual	NFLG
JL100097	KF818704	C	2010	Not recorded	Not recorded	Heterosexual	env
JL100098	KF818705	CRF01_AE	2010	Not recorded	Male	Male Sex with Male	env
JL100099	KF818706	B	2010	Not recorded	Not recorded	Heterosexual	env
JL100101	KF818707	B	2010	Not recorded	Not recorded	Nosocomial	env
JL100102	KF818708	B	2010	Not recorded	Not recorded	Nosocomial	env
JL.DG01	KF818772	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env
JL.RF08L	KJ184179	01&07	2011	Not recorded	Not recorded	Heterosexual	env
JL.RF09	KJ184180	01&07	2011	639	Male	Heterosexual	NFLG
JL.RF10	KF818782	AIGH	2011	Not recorded	Not recorded	Nosocomial	env
JL.RF11	KF818783	01&07	2011	Not recorded	Not recorded	Not Recorded	env
JL110001	KF818709	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env
JL110004	KF818710	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env
JL110005	KF818711	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env
JL110006	KF818842	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	gag
JL110007	KF818712	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env
JL110009	KF818713	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env
JL110010	KF818845	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	gag
JL110012	KF818714	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env



JL110013	KF818715	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env
JL110014	KF818716	CRF01_AE	2011	Not recorded	Not recorded	Heterosexual	env
JL110015	KF818717	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env
JL110016	KF818718	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env
JL110021	KF818719	CRF01_AE	2011	Not recorded	Not recorded	Heterosexual	env
JL110023	KF818720	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env
JL110024	KF818721	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env
JL110025	KF818722	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env
JL110026	KF818723	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env
JL110028	KF818724	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env
JL110029	KF818725	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env
JL110030	KF818726	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env
JL110031	KF818727	C	2011	Not recorded	Male	Male Sex with Male	env
JL110032	KF818728	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env
JL110033	KF818729	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env
JL110034	KF818730	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env
JL110035	KF818731	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env
JL110036	KF818732	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env
JL110037	KF818733	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env
JL110038	KF818734	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env
JL110039	KF818735	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env
JL110040	KF818736	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env
JL110041	KF818737	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env
JL110044	KF818738	B	2011	Not recorded	Male	Male Sex with Male	env
JL110046	KF818739	CRF01_AE	2011	Not recorded	Not recorded	Heterosexual	env
JL110047	KF818740	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env
JL110048	KF818741	C	2011	Not recorded	Male	Male Sex with Male	env
JL110051	KF818742	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env
JL110052	KF818743	C	2011	Not recorded	Male	Male Sex with Male	env
JL110054	KF818744	C	2011	Not recorded	Male	Male Sex with Male	env
JL110055	KF818745	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env
JL110056	KF818746	CRF01_AE	2011	Not recorded	Not recorded	Heterosexual	env
JL110057	KF818747	B	2011	Not recorded	Not recorded	Heterosexual	env
JL110060	KF818748	B	2011	Not recorded	Not recorded	Heterosexual	env
JL110061	KF818749	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env
JL110062	KF818750	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env
JL110064	KF818751	C	2011	Not recorded	Male	Male Sex with Male	env
JL110065	KF818752	CRF01_AE	2011	Not recorded	Not recorded	Heterosexual	env
JL110066	KF818753	CRF01_AE	2011	Not recorded	Not recorded	Heterosexual	env
JL110067	KF818754	B	2011	Not recorded	Not recorded	Nosocomial	env
JL110069	KF818755	C	2011	Not recorded	Not recorded	Heterosexual	env
JL110070	KF818888	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	gag
JL110071	KF818756	CRF01_AE	2011	Not recorded	Not recorded	Heterosexual	env
JL110072	KF818757	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env
JL110073	KF818758	B	2011	Not recorded	Not recorded	Mother-to-Child	env
JL110074	KF818759	B	2011	Not recorded	Not recorded	Nosocomial	env
JL110075	KF818760	C	2011	Not recorded	Not recorded	Heterosexual	env
JL110076	KF818761	B	2011	Not recorded	Not recorded	Heterosexual	env
JL110077	KF818895	B	2011	Not recorded	Not recorded	Heterosexual	gag
JL110085	KF818762	C	2011	Not recorded	Male	Male Sex with Male	env
JL110086	KF818763	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env
JL110087	KF818764	C	2011	Not recorded	Not recorded	IV Drug User	env
JL110088	KF818765	B	2011	Not recorded	Male	Male Sex with Male	env
JL110089	KF818766	C	2011	Not recorded	Not recorded	Heterosexual	env
JL110090	KF818767	CRF01_AE	2011	Not recorded	Male	Male Sex with Male	env
JL110092	KF818768	C	2011	Not recorded	Not recorded	Heterosexual	env
JL110093	KF818769	CRF01_AE	2011	Not recorded	Not recorded	Heterosexual	env
JL110094	KF818770	B	2011	Not recorded	Not recorded	Heterosexual	env
JL110095	KF818771	CRF02_AG	2011	Not recorded	Not recorded	Heterosexual	env
JL1001	KJ544520	B	2012	Not recorded	Male	Nosocomial	pol
JL1002	KJ544521	B	2012	Not recorded	Male	Nosocomial	pol
JL1009	KJ544522	B	2012	Not recorded	Female	Nosocomial	pol
JL1013	KJ544523	B	2012	Not recorded	Male	Nosocomial	pol

JL1014	KJ544524	B	2012	Not recorded	Male	Heterosexual	pol
JL1024	KJ544525	CRF01_AE	2012	Not recorded	Male	Heterosexual	pol
JL1030	KJ544526	B	2012	Not recorded	Female	Nosocomial	pol
JL1035	KJ544527	CRF01_AE	2012	Not recorded	Male	Male Sex with Male	pol
JL1038	KJ544528	B	2012	Not recorded	Female	Heterosexual	pol
JL1041	KJ544529	CRF01_AE	2012	Not recorded	Male	Heterosexual	pol
JL1057	KJ544530	B	2012	Not recorded	Male	Heterosexual	pol
JL1062	KJ544531	CRF01_AE	2012	Not recorded	Male	Male Sex with Male	pol
JL1064	KJ544532	B	2012	Not recorded	Male	Male Sex with Male	pol
JL1067	KJ544533	B	2012	Not recorded	Female	Heterosexual	pol
JL2005	KJ544534	CRF61_BC	2012	Not recorded	Male	Heterosexual	pol
JL2006	KJ544535	CRF61_BC	2012	Not recorded	Female	Heterosexual	pol
JL2012	KJ544536	CRF02_AG	2012	Not recorded	Female	Heterosexual	pol
JL2027	KJ544537	B	2012	Not recorded	Male	Heterosexual	pol
JL2036	KJ544538	C	2012	Not recorded	Male	Male Sex with Male	pol
JL2048	KJ544539	C	2012	Not recorded	Male	Heterosexual	pol
JL2061	KJ544540	CRF01_AE	2012	Not recorded	Male	Male Sex with Male	pol
JL2065	KJ544541	CRF01_AE	2012	Not recorded	Male	Heterosexual	pol
JL2072	KJ544542	B	2012	Not recorded	Male	Male Sex with Male	pol
JL2076	KJ544543	C	2012	Not recorded	Male	IV Drug User	pol
JL2084	KJ544544	CRF01_AE	2012	Not recorded	Male	Male Sex with Male	pol
JL3019	KJ544545	CRF01_AE	2012	Not recorded	Male	Male Sex with Male	pol
JL3028	KJ544546	C	2012	Not recorded	Male	Male Sex with Male	pol
JL3038	KJ544547	CRF01_AE	2012	Not recorded	Male	Male Sex with Male	pol
JL3050	KJ544548	CRF01_AE	2012	Not recorded	Male	Male Sex with Male	pol
JL3055	KJ544549	CRF01_AE	2012	Not recorded	Female	Heterosexual	pol
JL3059	KJ544550	CRF01_AE	2012	Not recorded	Male	Male Sex with Male	pol
JL3071	KJ544551	CRF01_AE	2012	Not recorded	Male	Male Sex with Male	pol
JL3085	KJ544552	C	2012	Not recorded	Male	Male Sex with Male	pol
JL3087	KJ544553	C	2012	Not recorded	Male	Heterosexual	pol
JL3088	KJ544554	B	2012	Not recorded	Male	Male Sex with Male	pol

\*NFLG, near full-length genome

**Table S4 Clinical and phylogenetic data of 96 Jilin reference sequences with available full-length V3-V4 regions obtained from HIV database**

Sequence name	Sampling year	Gender	Risk Factor	CD4 count (per $\mu$ L)	Viral load (per $\mu$ L)	Co-infection	Clinical stage of disease	Subtype*	Env V3 sequence	FPR**	Env V4 sequence
JL100005	2010	NR	Hetero	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSINIGPGQAFYRTGDIIGDIRQAYC	92.3	CNTTKLFNSTWIGNETMEGGNSDTIILPC
JL100007	2010	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSINIGPGQAFYRTGDIIGDIRQAYC	92.3	CNTTKLFNSTWRGNENMTKGNDNDTIILPC
JL100014	2010	NR	Hetero	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSVNIIGPGQAFYRTGDIIGDIRQAYC	93.8	CNTTKLFNSTWTGNETKQEGNHTGTIILPC
JL100020	2010	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTITSISIGPGRFYRTGDIRGDIRQAYC	32	CNTSKLFNSTWKGNETKEGGNDNDTIILPC
JL100027	2010	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSITMGPQGFYRTGDIIGDIRKAYC	83.3	CNTTKLFNINTTELFNSTGGNNNDTIILPC
JL100032	2010	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSISIGPGRFYRTGDIIGDIRQAYC	6.7	CNTTKLFNSTWIGNETMERGHNDTIILPC
JL100034	2010	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSRIGPGQTFYRTGDIIGDIRQAYC	8.1	CNTTKLFNSTWIGNETMERGSDNDTIILPC
JL100037	2010	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSITMGPQGFYRTGDIIGDIRQAYC	54.2	CNTTKLFNINTTKLFNSTGGNNNDTIILPC
JL100038	2010	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSINIGPGRFYRTGDIIGDIRQAYC	7.4	CNTTKLFNSTWTEVNSTWTEVNSTREESNSSDIILPC
JL100041	2010	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSFRIGPGQVFYRTGDIIGDIRKAYC	1.5	CNTSKLFNSTKNGTMEGLNGTIILPC
JL100042	2010	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSINIGPGRFYRTGDIIGDIRQAYC	49.2	CNTTKLFNSTGGNNNDTIILPC
JL100043	2010	NR	Hetero	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSISIGPGRFYRTGDIIGDIRQAYC	3.7	CNTTKLFNSTQFNSTGGNDNGSDFNSTGGNDNGTIILP-
JL100047	2010	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSRIGPGQVFYRTGDIIGDIRKAYC	4.8	CNTTKLFNSTQNGTMEGLNTTIILPC
JL100051	2010	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSITMGPQGFYRTGDIIGDIRQAYC	15	CNTTKLFNSTWIRNETMRGGNETMKRDNGSDTIILPC
JL100052	2010	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSINIGPGQVFYRTGDIIGDIRQAYC	98.9	CNTTKLFNSTWRGNETMREGNASDTIILPC
JL100053	2010	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSINIGPGRFYRTGDIIGDIRQAYC	27.5	CNTTKLFNSIWIGNETEVEGNNDTIILPC
JL100056	2010	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSINIGPGRFYRTGDIIGDIRQAYC	49.2	CNTTKLFNSNTTTLFNSTGGNNNDTIILPC
JL100057	2010	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSIRIGPGQVFYRTGDIIGDIRKAYC	6.9	CNTTKLFNSTENGTRREGLNGTIILPC
JL100059	2010	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSIRIGPGQVFYRTGDIIGDIRRAYC	7.8	CNTTKLFNSTENGTRREGLNGTVILPC
JL100064	2010	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSIRIGPGQVFYRTGDIIGDIRQAYC	58.3	CNTSKLFNSTWIGNETKEGGNDTSPILPC
JL100068	2010	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSRIGPGQVFYRTGDIIGDIRKAYC	4.8	CNTTKLFNSTENXTMEGLNTTIILPC
JL100069	2010	NR	Hetero	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSITMGPQGFYRTGDIIGDIRQAYC	54.2	CNTSKLFNSTGGNYSTEGNYNDTIILPC
JL100073	2010	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSISIGPGQVFYRTGDIIGDIRQAYC	9	CNTSKLFNSTWRGNETKEGSDNDTIILPC
JL100079	2010	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSISIGPGRFYRTGDIIGDIRQAYC	37.1	CNTTKLFNSTWIGNETKEGGNSDTIILPC

JL100087	2010	NR	Hetero	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSIHIGPGQVIFYQTGDIIGNIRQAYC	47.3	CNTTPLFKYNTTLNRYTKETTENGSIILKC
JL100098	2010	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSITMGPQKTFYRTGDIIGDIRQAYC	54.2	CDTTKLFNSTGGNNNDTILPC
JL110001	2011	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRRESINIGPGRFYKTGDIIGDIRAFC	6.7	CNTTKLFNTTKLFNSTETNNGTILPC
JL110004	2011	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPNYNNTRTRITMGPQKXFYKTGEIIGDIRKAYC	0.2	CNTTKMFNSTWGGNETKEGGNNTTILPC
JL110005	2011	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNIRTSMRIGPGQVIFYRTGAITGDIRKAYC	1.7	CNTTKLFNSTENGTEELNGTILPC
JL110007	2011	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSIRIGPGQVIFYRTGDIIGDIRKAYC	3.7	CNTTKLFNSTENGTEIENGLNGTILPC
JL110009	2011	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSIGIGPGRTFYRTGDIIGDIRQAYC	5.1	CNTTKLFNSTWIGNETTKQGNASDTILPC
JL110012	2011	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSISIGPGQTFYRTGDIIGDIRKAYC	76.8	CNTTKLFNSTQNGTILPC
JL110013	2011	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSIRIGPGQMFYKTGDIXGDIRKAYC	3.7	CNTTKLFNSTKNGTIEGLNGTILPC
JL110014	2011	NR	Hetero	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSITIGPGRFYRTGDIIGDIRQAYC	11.5	CNTTKLFNSIWIGNETMERGNDNDTDTITLPC
JL110015	2011	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNIRTSMRIGPGQVHFRTGAITGDIRKAYC	1.7	CNTTKLFNSTENGTEELNGTILPC
JL110016	2011	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSINMGPQKAFYRTGDIIGDIRQAYC	49	CNTTKLFNSNNNSNNSKEGNNTDITLPC
JL110021	2011	NR	Hetero	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSIRIGPGQVIFYRTGDIIGDIRSAYC	80.1	CNTTKLFNGTENGTEGNSNHTIIPC
JL110023	2011	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSITIGPGRFYRTGDIIGDIRQAYC	27.5	CNTTKLFNSIWIGNETMERGNDSDTILPC
JL110024	2011	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSIRIGPGQVIFYRTGDIIGDIRRAYC	6.7	CNTTKLFNSTWIGNETIEKGNATDITLPC
JL110025	2011	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSINIGPGRTFYRTGDIIGDIRQAYC	83	CNTTKLFNSTGGNNNGTILPC
JL110026	2011	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSIRIGPGQVIFYRTGDIIGNIRKAYC	3.5	CNTTKLFNSTENGTEIESNTTILPC
JL110028	2011	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSIRIGPGQTFYRTGDIIGDIRQAYC	58.3	CNTTKLFNSTWIGNETMETGKNSSTILPC
JL110029	2011	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSITIGPGRFYRTGDIIGDIRQAYC	93.9	CNTSKLFNSTWEGNETTREGHDNDTILPC
JL110032	2011	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSIHIGPGQTFYRTGDIIGNIRQAYC	96.7	CNTTKLFNSTWIGNETREEGKSDTILPC
JL110033	2011	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSITMGPQKTFYRTGDIIGDIRQAYC	91.9	CNTTKLFNSKLFNSTGGNNNDTILPC
JL110034	2011	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNKRKSAIGPQAFYRTGDIIGDIRQAYC	5.9	CNTTKLFNSTFNGTEMKNETREKNDTILPC
JL110035	2011	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTGIRIGPGQVIFYRTGDIIGDIRSAYC	63.1	CNTTKLFDGTENGTEGNSNHTIIPC
JL110036	2011	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSIRIGPGQMFYRTGDIIGDIRKAYC	24.7	CNTTKLFNSTENGTELEGNNTIIPC
JL110037	2011	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSMSIGPGQVIFYRTGDIIGDIRQAYC	26.9	CNTTKLFNSTWMRNETMREGNKTDIILPC
JL110038	2011	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSITIGPGRFYRTGDIIGDIRQAYC	94.1	CNTTKLFNSTWTGNETMEGGNSKTIILPC
JL110039	2011	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRTSIRIGPGQMFYRTGDIIGDIRKAYC	18.3	CNTTKLFNGTENGTEELNGTILPC

JL110040	2011	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPFNNRTRTSIRIGPGQAFYRTGDIIGNIRQAYC	12	CNTTKLFNSTWNETSKEGNDNGTILPC
JL110041	2011	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNRQSRIGPGQMFYRTGAIIGDIRKAYC	42.3	CNTTKLFNSTENGTMEGFNNTIILPC
JL110046	2011	NR	Hetero	NR	NR	NR	NR	CRF01_AE	CTRPSNNRTRSTRIGPGQMFYRTGDIIGDIRKAYC	5.4	CNTTKLFNRTENETMEGNSNTIILPC
JL110047	2011	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNVRTSIPMPGKTFYRTGDIIGNIRQAYC	43.3	CNTTKLFNSTGGNNNTGGNNNGTILPC
JL110055	2011	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNRTRTSISLPGGQAFYRTGDIIGDIRQAYC	6.8	CNTTKLFNSTWIGNESRVVGNDSDTIILPC
JL110062	2011	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNRTRTGIRIGPGQVYFRTGEITGDIRSAYC	63.1	CNTTKLFDGTETGTREGSNHTIIPC
JL110065	2011	NR	Hetero	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRRESIRIGPGQAFYRTGDIIGDIRQAYC	56.1	CNTTKLFGTEINNETMTXGTIILPC
JL110066	2011	NR	Hetero	NR	NR	NR	NR	CRF01_AE	CTRPSNNTRKSINIGPGRVYFRTGDIIGDIRQAYC	3.1	CNTTKLFNSTWEGNETMQGGNGNDTILPC
JL110072	2011	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNRTRTSINIGPGRVYFRTGDIIGDIRQAYC	83	CNTTKLFGTWFNGTWTGTETEGGNNIILPC
JL110086	2011	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNRTRTSINIGPGRVYFRTGDIIGDIRQAYC	83	CNTTKLFNNTGGNNNDTILPC
JL110090	2011	Male	MSM	NR	NR	NR	NR	CRF01_AE	CTRPSNNRTRTSINIGPGQAFYRTGDIIGNIRQAYC	94.8	CNTTKLFNSTWTGNETIGNETMENNNTIILPC
JL110093	2011	NR	Hetero	NR	NR	NR	NR	CRF01_AE	CTRPSNNRQSRIGPGRVYFRTGDIIGDIRQAYC	28.5	CNTSKLFNSTWEGNETKERGNDNDTILPC
JL100091	2010	NR	Hetero	NR	NR	NR	AIDS	BC	CTRPNNNRKSIRIGPGQTFYATGDIIGDIRQAHC	17	CNTSSLFDGTYPNSTESNSSSITIPC
JL100044	2010	Male	Hetero	NR	NR	NR	NR	C	CTRPNNNRKSIRIGPGQTFYATGDIIGDIRQAHC	83	CNTSGLFNSTYTNGTFTINSTYI-HNGTGNSSSV-----LVIPC
JL100048	2010	Male	MSM	NR	NR	NR	NR	C	CTRPGNNRKSIRIGPGQTFYATGGIIGDIRQAHC	50.5	CNTSGLFNASGLNGSFIHNGTF-NGTESNST-----ITIPC
JL100065	2010	Male	MSM	NR	NR	NR	NR	C	CTRPNNNRKSIRIGPGQTFYATGDIIGDIKHAHC	99.4	CNTSQLFNS----NSTY-----NG-----TIPC
JL100071	2010	NR	MSM	NR	NR	NR	NR	C	CTRPNNNRKSIRIGPGQTFYATGDIIGNIRQAYC	83	CNTSGLFNSTYTPNGTFTFNSTYIHNHGTG-NSSSV-----LVIPC
JL100078	2010	NR	IDU	NR	NR	NR	NR	C	CTRPNNNRKSIRIGPGQTFYATGDIIGDIRQAYC	78.8	CNTSGLFNGTYNG-----TYMPNSTG-NTSS-----IIPC
JL100097	2010	Male	Hetero	NR	NR	NR	NR	C	CTRPGNNRKSIRIGPGQTFYATGGIIGDIRQAHC	50.5	CNTSRLFNGTYN-----PNGTE-NNSSN-----ITIPC
JL110031	2011	Male	MSM	NR	NR	NR	NR	C	CTRPNNNRKSIRIGPGQTFYATGAIIGDIRQAHC	70.6	CNTSGLFNSTYINGTFRF-----NGTS-NDTESNST----ITIPC
JL110048	2011	Male	MSM	NR	NR	NR	NR	C	CTRPSNNRKSIRIGPGQSFYATGDIIGDIRQAHC	68.9	CNTSKLFNSTY-----NGTS-NSYNGTNSSSIIIPC
JL110052	2011	Male	MSM	NR	NR	NR	NR	C	CTRPNNNRKSIRIGPGQTFYATGDIIGDIRQAHC	83	CNTSGLFNSTYMYNSTY-----NGTS-NSSS-----IIVIPC
JL110064	2011	Male	MSM	NR	NR	NR	NR	C	CTRPNNNRKSIRIGPGQTFYATGDIIGDIRQAHC	65.9	CNTSGLFNSTYMHNGTFTFNSTYI-NGTG-NSS-----LVIPC
JL110085	2011	NR	MSM	NR	NR	NR	NR	C	CTRPNNNRKSIRIGPGQTFYATGDIIGDIRQAHC	83	CNTSGLFNSTYMHNGTFTFNSTYI-NGTG-NSSSV-----LVIPC
JL110089	2011	NR	Hetero	NR	NR	NR	NR	C	CTRPGNNRKSIRIGPGQTFYATGDIIGDIRQAHC	69.8	CNTSGLFNGTYT-----TF-NDTESNST-----ITLPC
JL110092	2011	Female	Hetero	NR	NR	NR	NR	C	CTRPGNNRKSIRIGPGQTFYATGDIIGDIRQAHC	69.8	CNTSGLFNSTHMPNGTFM-HNGTF-NDTESNST-----ITIPC
JL070038	2007	NR	NR	NR	NR	NR	NR	B	CTRPNNNRKSINI--GPGQAWYTTGQIIGDIRQAHC	83	CNTSQLFNSTW---YENGTTTKNFTTGT-----ITLPC

JL100035	2010	NR	Hetero	NR	NR	NR	NR	B	CARPNNNTRKSIHL--GPGKAWYTTGQIIGKIRQAYC	6.8	CNTSQLFNSTW---YSNGT--QNDTIGNDT----ITLPC
JL100036	2010	NR	Hetero	NR	NR	NR	NR	B	CTRPNNNTRKSIHL--GPGQALYTTGQIIGDIRQAHC	90.9	CNTSQLFNSTW---YTNNTQKGNIGNGT-----ITLPC
JL100039	2010	NR	Hetero	NR	NR	NR	NR	B	CTRPNNNTRKSIHL--GPGKAWYTTGQIIGDIRQAHC	14.7	CDTSQLFNSTW----NNTSTWNTEGEHD----ITLPC
JL100063	2010	NR	Hetero	NR	NR	NR	NR	B	CTRPNNNTRKSIPL--GPGRAWYTTGQIIGDIRQAHC	43.2	CNTSKLFNSTW----NNNSTWNDTTDNDT----ISLPC
JL100085	2010	NR	Hetero	NR	NR	NR	NR	B	CTRPNNNTIKSIHL--GVGRAWYATGKIVGDIRQAHC	2.9	CNTSQLFNSTR----NGTNTGNDTSNITT----IILPC
JL100090	2010	NR	Hetero	NR	NR	NR	NR	B	CTRPNNNTRKSINI--GPGQAWYTTGQIIGDIRQAHC	83	CNTSQLFNSTW---TGNSTSTTEGNNI-----ITLPC
JL100099	2010	NR	Hetero	NR	NR	NR	NR	B	CTRPNNNTRKSIHL--GPGSTWFATGDIIGDIRQAHC	89.6	CNTSKLFNSTW---YANGTWNGTTGEGNI-----ITLPC
JL100101	2010	NR	Nosocomial	NR	NR	NR	NR	B	CTRPNNNTRKSINI--GPGQAWYATGQIIGDIRQAHC	91.4	CNTSQLFNSTW---DPDGNSTCNSTAGGDN----ITLPC
JL110044	2011	Male	MSM	NR	NR	NR	NR	B	CIRPGNTRKSIHL--GPGKAFYATGAIIGNIRQAHC	31.7	NNTSNLFINI--SANETGLDNETWQSDFTGENITLQC
JL110057	2011	NR	Hetero	NR	NR	NR	NR	B	CTRPNNNTRKSIQL--GXGRAWYTTGQIIGDIRQAHC	6.8	CNTSQLFNSTW----KVNSTGNDTTGNNT----ITLPC
JL110060	2011	NR	Hetero	NR	NR	NR	NR	B	CTRPNNNTRKSIPL--GQGRAWYTTGQIIGDIRQAHC	8.9	CNTSQLFDSTW---DANSTSMGNNTTENDNSN--ITLPC
JL110067	2011	NR	Nosocomial	NR	NR	NR	NR	B	CTRPNNNTRKRMSL--GPGKVWYTTGQIVGDIRQAHC	0.5	CNTSKLFNSVW---HANGTRNGTTTVN-----ITLPC
JL110074	2011	NR	Nosocomial	NR	NR	NR	NR	B	CTRPNNNTRKSIPL--GPGQAWYTTGDIIGDIRQAHC	96.2	CNTSQLFNGTW----NGT-TGNDT-----IVLPC
JL110076	2011	NR	Hetero	NR	NR	NR	NR	B	CTRPNNNTRKSIQL--GQGRAWYATGDIIGDIRQAHC	12.1	CNTSQLFNSTW---YKNGTWGTRATENDT----ITLPC
JL110088	2011	Male	MSM	NR	NR	NR	NR	B	CTRPNNNTRKSIHL--GWGRSLYATGDIVGDIRQAHC	83.3	CNTTKLFTNLT---LTNNTWNTWPESNDTKS--IVLPC
JL110094	2011	NR	Hetero	NR	NR	NR	NR	B	CTRPNNNTRKGIHL--GPGQWYATGEIIGDIRQAHC	91	CNTSKLFNSTWENSTWNDTSTNET-----IILPC
JL100084	2010	NR	Hetero	NR	NR	NR	NR	CRF02_AG	CIRPGNTRKGVHIGPGQTFYATGDIIGDIRQAHC	96.2	CNTSGLFNSTWDRDSNVTNSNVTNDTENENITLQC
JL110095	2011	NR	Hetero	NR	NR	NR	NR	CRF02_AG	CTRPANNTRESVRIGPGQTFYATGDIIGDIRQAHC	94.1	CNTSGLFNSTWNSGTGNSMVTNNTNNGNITLQC

\* Subtype information was obtained from the HIV LANL database.

\*\* FPR was the false positive rate in coreceptor prediction using online Geno2Pheno tool.

NR: not recorded; Hetero: Heterosexual; MSM: male sex with male