

Table S2. Whole-genome average nucleotide identity (ANI) and alignment percentage (AP) of 27 ASFV Strains.

	SA/Mkuzi1979 ASFV_HU_2018 ASFV Wuhan 2019-1 ASFV-SY18 ASFV-wBS01 ASFV/IT14/1490 ASFV/pig/China/CAS19-01/2019 Belgium/Etalle/wb/2018 Benin 97/1 CN/2019/InnerMongolia-AES01 China/AnhuiXCGQ Estonia 2014 GZ201801 Georgia 2007/1 Italy/26544/OG10 Italy/47/Ss/2008 Kashino 04/13 POL/2015/Podlaskie Pol16_20186_o7 Portugal/L60 Portugal/NHV/1968 Portugal/OURT 88/3 Russia/Odintsovo_02/14 Spain/BA71 Spain/E75 VNIHY/2019-ASFV1 VNIQ/2019-ASFV1 VNIHY/2022-ASFV2																												
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	
SA/Mkuzi1979	1		96.89	96.89	96.86	96.88	96.89	96.89	96.89	98.00	96.88	96.89	96.95	96.88	96.89	98.03	98.03	96.89	96.89	96.89	98.03	97.80	97.83	96.86	98.09	97.91	96.83	96.83	96.87
ASFV_HU_2018	2	95.11		100.00	99.98	99.99	99.99	100.00	100.00	97.18	99.99	100.00	99.92	99.99	99.99	97.19	97.19	99.98	99.99	99.99	97.27	97.14	97.22	99.98	97.10	97.07	99.93	99.93	99.92
ASFV Wuhan 2019-1	3	95.11	99.66		99.98	99.99	99.99	100.00	100.00	97.18	99.99	100.00	99.93	99.99	99.99	97.19	97.19	99.98	99.99	99.99	97.27	97.14	97.22	99.98	97.10	97.08	99.93	99.93	99.92
ASFV-SY18	4	95.42	99.46	99.46		99.98	99.97	99.98	99.98	97.15	99.97	99.98	99.91	99.97	99.98	97.16	97.16	99.97	99.97	99.98	97.24	97.13	97.21	99.97	97.08	97.05	99.92	99.92	99.90
ASFV-wBS01	5	95.41	99.47	99.47	99.81		99.99	99.99	99.99	97.17	99.99	99.99	99.92	99.99	99.99	97.19	97.19	99.97	99.98	99.99	97.27	97.13	97.22	99.97	97.09	97.07	99.93	99.93	99.91
ASFV/IT14/1490	6	95.41	99.47	99.47	99.87	99.82		99.99	99.99	97.17	99.98	99.99	99.86	99.98	99.99	97.19	97.19	99.97	100.00	99.99	97.27	97.14	97.22	99.97	97.10	97.07	99.93	99.93	99.91
ASFV/pig/China/CAS19-01/2019	7	95.41	99.47	99.48	99.87	99.82	99.99		100.00	97.18	99.99	99.99	99.87	99.99	99.99	97.19	97.19	99.97	99.99	99.99	97.27	97.14	97.22	99.98	97.10	97.07	99.93	99.93	99.92
Belgium/Etalle/wb/2018	8	95.21	99.28	99.29	99.66	99.61	99.78	99.79		97.18	99.99	99.99	99.92	99.99	100.00	97.19	97.19	99.98	99.99	99.99	97.27	97.14	97.22	99.98	97.10	97.07	99.93	99.93	99.92
Benin 97/1	9	95.10	94.51	94.52	94.82	94.81	94.81	94.81	94.61		97.17	97.17	97.13	97.17	97.18	99.94	99.94	97.16	97.18	97.17	99.92	99.83	99.83	97.06	99.86	99.93	97.02	97.02	97.04
CN/2019/InnerMongolia-AES01	10	95.41	99.47	99.48	99.77	99.78	99.78	99.78	99.58	94.81		99.99	99.91	99.98	99.99	97.18	97.18	99.97	99.98	99.99	97.26	97.13	97.21	99.97	97.09	97.07	99.93	99.93	99.91
China/AnhuiXCGQ	11	95.41	99.47	99.48	99.87	99.82	99.99	100.00	99.78	94.81	99.79		99.87	99.99	99.99	97.19	97.19	99.97	99.99	99.99	97.27	97.14	97.22	99.98	97.10	97.07	99.93	99.93	99.91
Estonia 2014	12	91.78	94.53	94.65	94.39	94.34	94.47	94.47	94.42	93.77	94.31	94.47		99.86	99.81	97.13	97.13	99.90	99.86	99.87	97.16	97.29	97.35	99.90	97.13	97.23	99.90	99.99	99.97
GZ201801	13	95.41	99.47	99.48	99.87	99.82	99.99	100.00	99.78	94.81	99.79	100.00	94.47		99.99	97.18	97.18	99.97	99.98	99.99	97.26	97.13	97.21	99.97	97.10	97.06	99.92	99.93	99.91
Georgia 2007/1	14	95.11	99.41	99.42	99.50	99.51	99.51	99.51	99.32	94.52	99.47	99.51	94.87	99.51		97.19	97.19	99.98	99.99	99.99	97.27	97.14	97.23	99.98	97.10	97.08	99.93	99.93	99.91
Italy/26544/OG10	15	94.94	94.35	94.36	94.65	94.64	94.64	94.64	94.45	99.64	94.64	94.65	93.61	94.65	94.35		99.98	97.17	97.19	97.19	99.94	99.86	99.87	97.16	99.87	99.96	97.01	97.01	97.04
Italy/47/Ss/2008	16	94.48	93.90	93.90	94.20	94.19	94.19	94.19	94.00	99.14	94.19	94.19	93.17	94.19	93.90	99.37		97.17	97.19	97.19	99.94	99.86	99.87	97.16	99.87	99.95	97.01	97.01	97.04
Kashino 04/13	17	95.31	98.09	98.10	98.40	98.40	98.40	98.20	94.72	98.40	98.40	92.90	98.40	98.10	94.59	94.14		99.97	99.97	97.25	97.14	97.22	99.97	97.12	97.06	99.91	99.91	99.90	
POL/2015/Podlaskie	18	95.41	99.47	99.47	99.86	99.82	99.99	99.99	99.78	94.81	99.78	99.99	99.47	99.99	99.51	94.64	94.19	98.40		99.99	97.27	97.14	97.22	99.97	97.10	97.07	99.92	99.92	99.91
Pol16/20186/o7	19	95.41	99.47	99.48	99.87	99.82	99.99	100.00	99.79	94.81	99.78	100.00	94.48	100.00	99.51	94.64	94.19	98.40	99.99		97.27	97.14	97.22	99.98	97.10	97.07	99.93	99.93	99.91
Portugal/L60	20	95.08	93.94	93.95	94.25	94.24	94.24	94.23	94.04	99.89	94.24	94.24	93.75	94.24	93.95	99.60	99.13	94.21	94.24	94.24		99.95	99.90	97.25	99.91	99.96	96.99	96.99	97.02
Portugal/NHV/1968	21	93.30	92.37	92.38	92.64	92.65	92.65	92.65	92.46	94.22	92.65	92.65	89.05	92.65	92.37	93.95	93.52	92.61	92.65	92.65	93.69		99.99	97.13	99.89	99.85	97.16	97.16	97.19
Portugal/OURT 88/3	22	93.29	92.34	92.35	92.62	92.62	92.62	92.62	92.44	94.31	92.62	92.62	89.12	92.62	92.34	93.99	93.56	92.58	92.62	92.62	94.16	99.89		97.21	99.83	99.89	97.22	97.22	97.26
Russia/Odintsovo_02/14	23	95.43	99.45	99.45	99.87	99.80	99.86	99.86	99.86	95.38	99.76	99.86	94.38	99.86	99.49	94.66	94.21	98.39	99.86	99.86	94.25	92.64	92.61		97.09	97.04	99.91	99.91	99.89
Spain/BA71	24	92.87	93.37	93.38	93.67	93.66	93.66	93.47	96.73	93.66	93.66	92.01	93.66	93.38	96.55	96.10	93.23	93.66	93.66	96.87	93.49	93.39	93.68		99.76	97.39	97.39	97.32	
Spain/E75	25	94.85	94.26	94.26	94.56	94.55	94.55	94.35	99.41	94.55	94.55	93.49	94.55	94.26	99.20	98.73	94.48	94.55	94.55	99.53	93.94	93.84	94.56	97.01		97.09	97.09	97.12	
VNIHY/2019-ASFV1	26	95.48	99.39	99.40	99.69	99.70	99.70	99.70	99.49	95.43	99.70	99.71	94.38	99.71	99.39	95.26	94.81	98.32	99.70	99.70	95.41	92.58	92.06	99.68	92.06	94.62		100.00	99.98
VNIQ/2019-ASFV1	27	95.49	99.40	99.40	99.70	99.71	99.71	99.72	99.50	95.44	99.71	99.72	94.39	99.72	99.40	95.27	94.82	98.33	99.71	99.71	95.42	92.58	92.07	99.69	92.07	94.63	99.80		99.98
VNIHY/2022-ASFV2	28	95.36	99.24	99.25	99.54	99.55	99.55	99.55	99.34	95.31	99.55	99.56	94.24	99.56	99.24	95.14	94.69	98.17	99.55	99.55	95.29	92.49	91.97	99.53	92.50	94.50	99.64	99.64	

* The area with yellow ANI on the table indicates average nucleotide identity(ANI), and the area with green AP indicates alignment percentage(AP).