

Table S3. Sequence identities of 28 ORFs compared VN/HY/2019-ASFV1 and VN/QP/2019-ASFV1 with 22 particular ASFV strains

(a) Sequence identities of nucleotides

ASFV strain name	O174L	NP419L	1GF_505-91GF_505-5	GF_360-21GF_360-1	GF_360-16GF_360-14	GF_110-1GF_110-13	GF_110-13GF_110-1	M1249L	L11L	KP177R	K145R	I73R	I267L	I196L	EP153R	E199L	DP238L	D1133L	CP204L	CP123L	C84L	C717R	C315R					
VN/QP/2019-ASFV1	100.00	99.92	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.83	100.00	100.00	100.00	100.00	100.00	100.00	100.00					
VN/HY/2019-ASFV1	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00					
Spain_E75	97.33	98.65	97.50	98.73	82.44	82.41	98.11	98.49	89.02	95.68	99.95	98.95	98.82	98.22	97.56	98.85	96.80	97.63	93.26	56.81	99.33	98.88	99.14	97.77	95.69	99.22	99.07	99.05
Spain_BA71	97.52	98.65	97.50	98.86	77.96	92.18	98.20	98.49	100.00	22.41	12.36	12.36	98.85	98.23	97.56	98.85	96.34	97.63	93.26	56.81	99.83	98.88	99.17	97.77	95.69	99.21	100.00	99.15
Portugal_OURT_88_3	97.33	98.65	97.50	98.73	77.96	92.18	98.11	2.43	88.68	83.79	69.18	69.18	98.88	97.87	97.56	98.85	96.80	97.63	93.26	56.81	99.33	98.88	99.18	97.60	95.69	99.22	99.12	99.16
Portugal_NHV_1968	97.33	98.65	97.50	98.73	77.96	92.18	98.11	2.43	88.85	83.84	69.18	69.18	98.88	97.87	97.56	98.85	96.80	97.63	93.26	56.81	99.33	98.88	99.18	96.92	95.69	99.22	99.12	99.16
Portugal_L60	97.33	98.65	97.50	98.73	77.96	92.18	98.20	98.49	89.02	95.68	97.27	97.27	98.85	97.87	97.56	98.85	96.80	97.63	93.26	56.81	99.50	98.88	99.18	97.77	95.69	99.22	99.12	99.16
Pol16_20186_o7	100.00	100.00	100.00	99.93	100.00	93.04	99.91	99.88	100.00	99.15	99.58	99.58	100.00	100.00	100.00	99.77	100.00	100.00	100.00	100.00	99.67	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Italy_47_Ss_2008	97.33	98.65	97.43	98.73	77.96	92.06	97.92	98.37	89.02	94.82	97.27	97.27	98.82	98.22	97.56	98.63	96.80	97.63	93.26	56.81	99.50	98.88	99.18	97.77	95.69	99.22	99.03	99.05
Italy_26544_OG10	97.33	98.65	97.43	98.73	77.96	92.06	98.01	98.49	89.02	95.11	97.48	97.48	98.80	98.22	97.56	98.63	96.80	97.63	93.26	56.81	99.50	98.88	99.18	97.77	95.69	99.22	99.03	99.16
GZ201801	99.81	100.00	100.00	100.00	100.00	93.04	100.00	99.88	100.00	100.00	99.58	99.58	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.83	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Georgia_2007_1	100.00	99.92	99.93	100.00	100.00	93.04	100.00	99.88	99.66	99.13	99.58	99.58	100.00	100.00	100.00	100.00	99.87	100.00	100.00	100.00	99.83	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Estonia_2014	100.00	100.00	100.00	100.00	100.00	89.26	100.00	99.88	10.32	81.38	32.70	32.70	100.00	100.00	33.52	100.00	100.00	100.00	100.00	100.00	99.83	100.00	100.00	100.00	100.00	100.00	100.00	100.00
CN_2019_InnerMongolia-AES01	100.00	100.00	100.00	100.00	100.00	93.04	100.00	99.88	100.00	100.00	99.58	99.58	99.95	100.00	100.00	100.00	98.63	100.00	100.00	100.00	99.83	100.00	100.00	99.83	99.73	100.00	100.00	100.00
China_AnhuiXCGQ	99.43	100.00	100.00	100.00	100.00	92.06	100.00	99.88	100.00	100.00	99.58	99.58	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.83	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Benin_97_1	97.33	98.65	97.50	98.73	77.96	92.18	97.92	98.49	89.02	94.82	97.27	97.27	98.85	97.87	97.56	98.85	96.80	97.51	93.26	56.81	99.50	98.74	99.18	97.77	95.69	99.22	99.07	99.16
Belgium_Etalle_wb_2018	100.00	100.00	100.00	100.00	100.00	93.04	100.00	99.88	100.00	99.13	99.58	99.58	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.83	100.00	100.00	100.00	100.00	100.00	100.00	100.00
ASFV-wBS01	100.00	100.00	100.00	100.00	100.00	93.04	100.00	99.88	100.00	99.15	99.58	99.58	99.97	99.65	100.00	100.00	100.00	100.00	99.67	99.79	99.83	99.58	99.97	100.00	100.00	100.00	100.00	100.00
ASFV_Wuhan_2019-1	100.00	100.00	100.00	100.00	99.91	93.04	100.00	100.00	100.00	98.85	99.16	99.16	100.00	100.00	100.00	100.00	100.00	100.00	100.00	98.75	99.83	100.00	100.00	100.00	100.00	100.00	99.95	100.00
ASFV_pig_China_CAS19-01_2019	100.00	100.00	100.00	100.00	100.00	93.04	100.00	99.88	100.00	99.15	99.58	99.58	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.83	100.00	100.00	100.00	100.00	100.00	100.00	100.00
ASFV_LT14_1490	100.00	99.92	99.93	100.00	100.00	93.04	100.00	99.88	99.66	99.13	98.32	98.32	100.00	100.00	100.00	100.00	100.00	99.88	100.00	100.00	99.67	100.00	100.00	100.00	100.00	100.00	100.00	100.00
ASFV_HU_2018	100.00	100.00	100.00	100.00	100.00	93.04	100.00	99.88	100.00	99.13	99.58	99.58	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	99.83	100.00	100.00	100.00	100.00	100.00	100.00	99.89

(b) Sequence identities of proteins

ASFV strain name	O174L	NP419L	1GF_505-91GF_505-5	GF_360-21GF_360-1	GF_360-16GF_360-14	GF_110-1GF_110-13	GF_110-13GF_110-1	M1249L	L11L	KP177R	K145R	I73R	I267L	I196L	EP153R	E199L	DP238L	D1133L	CP204L	CP123L	C84L	C717R	C315R					
VN/QP/2019-ASFV1	100	99.76	100	100	100	100	100	100	100	100	100	100	100	100	100	99.5	100	100	100	100	100	100	100					
VN/HY/2019-ASFV1	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100					
Spain_E75	96.57	99.05	97.04	98.6	81.48	73.71	96.76	97.91	83.25	92	98.52	98.1	98.71	95.74	98.31	100	98.59	97.39	90.16	51.38	98.5	98.57	99.82	97.95	95.97	98.82	100	100
Spain_BA71	96.57	99.05	97.04	98.6	81.48	90.08	98.02	97.91	83.25	51.79	45.45	46.73	99.28	95.74	98.31	100	98.59	97.39	90.16	51.38	99.5	98.57	99.91	97.95	95.97	98.82	100	100
Portugal_OURT_88_3	96.57	99.05	97.04	98.4	71.95	90.08	96.76	36.59	82.23	76.7	93.6	69.03	99.36	91.4	98.31	100	98.59	97.39	90.16	51.38	98	98.57	99.91	97.44	95.97	98.82	100	100
Portugal_NHV_1968	96.57	99.05	97.04	98.4	71.95	90.08	96.76	36.59	82.74	76.92	93.65	69.03	99.36	91.4	98.31	100	98.59	97.39	90.16	51.38	98	98.57	99.91	97.34	95.97	98.82	100	100
Portugal_L60	96.57	99.05	97.04	98.6	71.95	90.08	94.92	97.91	83.25	92	97.04	98.06	98.8	94.62	98.31	100	98.59	97.39	90.16	51.38	98.5	98.57	99.91	97.95	95.97	98.82	100	100
Pol16_20186_o7	100	100	100	99.8	100	91.08	100	98.95	100	100	100	100	100	100	100	99	100	100	100	100	100	100	100	100	100	100	100	100
Italy_47_Ss_2008	96.57	99.05	97.04	98.6	81.48	89.68	98.94	97.56	83.25	91.92	97.62	95.51	99.28	95.74	98.31	99.32	98.59	97.39	90.16	51.38	98.5	98.57	99.91	97.95	95.97	98.82	99.86	100
Italy_26544_OG10	96.57	99.05	97.04	98.6	81.48	89.68	98.02	97.91	83.25	91.92	97.62	96.15	99.28	95.74	98.31	99.32	98.59	97.39	90.16	51.38	98.5	98.57	99.91	97.95	95.97	98.82	99.86	100
GZ201801	99.43	100	100	100	100	91.08	100	98.95	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Georgia_2007_1	100	99.76	99.8	100	100	91.08	100	98.95	100	100	100	100	100	100	100	99.5	100	100	100	100	100	100	100	100	100	100	100	100
Estonia_2014	100	100	100	100	100	83.2	100	98.95	50.67	73.08	100	100	100	100	40.62	100	100	100	100	100	99.5	100	100	100	100	100	100	100
CN_2019_InnerMongolia-AES01	100	100	100	100	100	91.08	100	98.95	100	100	99.19	100	99.92	100	100	100	100	100	100	100	99.5	100	100	99.49	99.19	100	100	100
China_AnhuiXCGQ	98.29	100	100	100	100	91.08	100	98.95	100	100	100	100	100	100	100	100	100	100	100	100	99.5	100	100	100	100	100	100	100
Benin_97_1	96.57	99.05	97.04	98.6	81.48	90.08	94.55	97.91	83.25	91.92	97.04	98.06	99.28	96.34	98.31	100	98.59	97.39	90.16	51.38	98.5	98.1	99.91	97.95	95.97	98.82	100	100
Belgium_Etalle_wb_2018	100	100	100	100	100	91.08	100	98.95	100	100	100	100	100	100	100	100	100	100	100	100	99.5	100	100	100	100	100	100	100
ASFV-wBS01	100	100	100	100	100	91.08	100	98.95	100	100	100	100	99.92	98.94	100	100	100	100	99.45	99.37	99.5	99.52	99.91	100	100	100	100	100
ASFV_Wuhan_2019-1	100	100	100	100	99.72	91.08	100	100	100	100	100	100	100	100	100	98.76	99.5	100	100	100	100	100	100	100	100	99.86	100	100
ASFV_pig_China_CAS19-01_2019	100	100	100	100	100	91.08	100	98.95	100	100	100	100	100	100	100	100	99.5	100	100	100	100	100	100	100	100	100	100	100
ASFV_LT14_1490	100	99.76	99.8	100	100	91.08	100	98.95	100	100	98.52	100	100	100	100	100	99.63	100	100	99	100	100	100	100	100	100	100	100
ASFV_HU_2018	100	100	100	100	100	91.08	100	98.95	100	100	100	100	100	100	100	100	99.5	100	100	100	100	100	100	100	100	100	99.68	100