

Serotype: ASIA1	Report date: 08/04/2005						
WRL Ref No: HKN/1/2005							
Date collected: March 2005	Topotype: none defined						
Date received by WRLFMD: 17/03/2005	Genotype/strain: none designated						
Date received for sequencing: 22/03/2005	Sequence filename: HKN05-01.SEQ						
Species: Cattle	Date sequence last updated: 01/04/2005						
Material used: BTy1	Total no. of comparisons: 328						
Region sequenced: VP1	Min. no. of nt for comparison: 300						
RT-PCR primers: As1-1C530F/NK61	Total turn-around time: 22 days						
No. of Nt determined: 633	Sequencing time: 17 days						
No. of ambiguities: 0							
Gene length: 633							
Comments:							
Ten Most Closely Related Viruses							
Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	As1/HKN/7/2005	HKN05-07	633	633	0	100	0
2	As1/HKN/6/2005	HKN05-06	633	632	0	99.84	0.16
3	As1/HKN/8/2005	HKN05-08	633	632	0	99.84	0.16
4	As1/HKN/4/2005	HKN05-04	633	632	0	99.84	0.16
5	As1/HKN/2/2005	HKN05-02	633	632	0	99.84	0.16
6	As1/HKN/3/2005	HKN05-03	633	631	0	99.68	0.32
7	As1/HKN/5/2005	HKN05-05	633	631	0	99.68	0.32
8	As1/PAK/1/2004	PAK04-01	633	618	0	97.63	2.37
9	As1/PAK/2/2004	PAK04-02	633	618	0	97.63	2.37
10	As1/PAK/69/2003	PAK03-69	633	616	0	97.31	2.69
Relationships to Reference Virus Strains							
Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	As1/IND/8/79	IND79-08	166	153	2	92.17	7.83
2	As1/IND/WBN/117/85* [AY687334]	IND85-AA	633	580	0	91.63	8.37
3	As1/Shamir/ISR/89	ISR89--A	633	562	0	88.78	11.22
4	As1/TAI/85 vs	TAI85-AA	590	500	1	84.75	15.25
5	As1/IND/63/72 [Y09949]	IND72B63	630	533	0	84.6	15.4
6	As1/Kimron/ISR/57 [AY593797]	ISR57KIM	633	532	0	84.04	15.96
7	As1/YNBS/CHA/58 [AY390432]	CHA58-AA	633	530	0	83.73	16.27
8	As1/CAM/9/80	CAM80-09	583	481	5	82.5	17.5
9	As1/PAK/1/54	PAK54-01	630	506	0	80.32	19.68
nt, nucleotides							
*, not a WRLFMD reference number							

Serotype: ASIA1	Report date: 08/04/2005
WRL Ref No: HKN/2/2005	
Date collected: March 2005	Topotype: none defined
Date received by WRLFMD: 17/03/2005	Genotype/strain: none designated
Date received for sequencing: 22/03/2005	Sequence filename: HKN05-02.SEQ
Species: Cattle	Date sequence last updated: 01/04/2005
Material used: BTy1	Total no. of comparisons: 328
Region sequenced: VP1	Min. no. of nt for comparison: 300
RT-PCR primers: As1-1C530F/NK61	Total turn-around time: 22 days
No. of Nt determined: 633	Sequencing time: 17 days
No. of ambiguities: 0	
Gene length: 633	

Comments:

Ten Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	As1/HKN/4/2005	HKN05-04	633	633	0	100	0
2	As1/HKN/7/2005	HKN05-07	633	632	0	99.84	0.16
3	As1/HKN/1/2005	HKN05-01	633	632	0	99.84	0.16
4	As1/HKN/6/2005	HKN05-06	633	631	0	99.68	0.32
5	As1/HKN/8/2005	HKN05-08	633	631	0	99.68	0.32
6	As1/HKN/3/2005	HKN05-03	633	630	0	99.53	0.47
7	As1/HKN/5/2005	HKN05-05	633	630	0	99.53	0.47
8	As1/PAK/1/2004	PAK04-01	633	617	0	97.47	2.53
9	As1/PAK/2/2004	PAK04-02	633	617	0	97.47	2.53
10	As1/PAK/69/2003	PAK03-69	633	615	0	97.16	2.84

Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	As1/IND/8/79	IND79-08	166	153	2	92.17	7.83
2	As1/IND/WBN/117/85* [AY687334]	IND85-AA	633	579	0	91.47	8.53
3	As1/Shamir/ISR/89	ISR89--A	633	561	0	88.63	11.37
4	As1/IND/63/72 [Y09949]	IND72B63	630	534	0	84.76	15.24
5	As1/TAI/85 vs As1/Kimron/ISR/57 [AY593797]	TAI85-AA	590	499	1	84.58	15.42
6	As1/YNBS/CHA/58 [AY390432]	ISR57KIM	633	531	0	83.89	16.11
7	As1/CAM/9/80	CHA58-AA	633	529	0	83.57	16.43
8	As1/PAK/1/54	CAM80-09	583	482	5	82.68	17.32
9		PAK54-01	630	507	0	80.48	19.52

nt, nucleotides

*, not a WRLFMD reference number

Serotype: ASIA1	Report date: 08/04/2005						
WRL Ref No: HKN/3/2005							
Date collected: March 2005	Topotype: none defined						
Date received by WRLFMD: 17/03/2005	Genotype/strain: none designated						
Date received for sequencing: 22/03/2005	Sequence filename: HKN05-03.SEQ						
Species: Cattle	Date sequence last updated: 01/04/2005						
Material used: BTy1	Total no. of comparisons: 328						
Region sequenced: VP1	Min. no. of nt for comparison: 300						
RT-PCR primers: As1-1C530F/NK61	Total turn-around time: 22 days						
No. of Nt determined: 633	Sequencing time: 17 days						
No. of ambiguities: 0							
Gene length: 633							
Comments:							
Ten Most Closely Related Viruses							
Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	As1/HKN/5/2005	HKN05-05	633	633	0	100	0
2	As1/HKN/1/2005	HKN05-01	633	631	0	99.68	0.32
3	As1/HKN/7/2005	HKN05-07	633	631	0	99.68	0.32
4	As1/HKN/4/2005	HKN05-04	633	630	0	99.53	0.47
5	As1/HKN/6/2005	HKN05-06	633	630	0	99.53	0.47
6	As1/HKN/8/2005	HKN05-08	633	630	0	99.53	0.47
7	As1/HKN/2/2005	HKN05-02	633	630	0	99.53	0.47
8	As1/PAK/1/2004	PAK04-01	633	616	0	97.31	2.69
9	As1/PAK/2/2004	PAK04-02	633	616	0	97.31	2.69
10	As1/PAK/69/2003	PAK03-69	633	614	0	97	3
Relationships to Reference Virus Strains							
Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	As1/IND/8/79	IND79-08	166	153	2	92.17	7.83
2	As1/IND/WBN/117/85* [AY687334]	IND85-AA	633	580	0	91.63	8.37
3	As1/Shamir/ISR/89	ISR89--A	633	560	0	88.47	11.53
4	As1/TAI/85 vs	TAI85-AA	590	500	1	84.75	15.25
5	As1/IND/63/72 [Y09949]	IND72B63	630	533	0	84.6	15.4
6	As1/Kimron/ISR/57 [AY593797]	ISR57KIM	633	532	0	84.04	15.96
7	As1/YNBS/CHA/58 [AY390432]	CHA58-AA	633	530	0	83.73	16.27
8	As1/CAM/9/80	CAM80-09	583	481	5	82.5	17.5
9	As1/PAK/1/54	PAK54-01	630	508	0	80.63	19.37
nt, nucleotides							
*, not a WRLFMD reference number							

Serotype: ASIA1	Report date: 08/04/2005
WRL Ref No: HKN/4/2005	
Date collected: March 2005	Topotype: none defined
Date received by WRLFMD: 17/03/2005	Genotype/strain: none designated
Date received for sequencing: 22/03/2005	Sequence filename: HKN05-04.SEQ
Species: Cattle	Date sequence last updated: 07/04/2005
Material used: BTy1	Total no. of comparisons: 328
Region sequenced: VP1	Min. no. of nt for comparison: 300
RT-PCR primers: As1-1C530F/NK61	Total turn-around time: 22 days
No. of Nt determined: 633	Sequencing time: 17 days
No. of ambiguities: 0	
Gene length: 633	

Comments:

Ten Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	As1/HKN/2/2005	HKN05-02	633	633	0	100	0
2	As1/HKN/1/2005	HKN05-01	633	632	0	99.84	0.16
3	As1/HKN/7/2005	HKN05-07	633	632	0	99.84	0.16
4	As1/HKN/8/2005	HKN05-08	633	631	0	99.68	0.32
5	As1/HKN/6/2005	HKN05-06	633	631	0	99.68	0.32
6	As1/HKN/3/2005	HKN05-03	633	630	0	99.53	0.47
7	As1/HKN/5/2005	HKN05-05	633	630	0	99.53	0.47
8	As1/PAK/1/2004	PAK04-01	633	617	0	97.47	2.53
9	As1/PAK/2/2004	PAK04-02	633	617	0	97.47	2.53
10	As1/PAK/69/2003	PAK03-69	633	615	0	97.16	2.84

Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	As1/IND/8/79	IND79-08	166	153	2	92.17	7.83
2	As1/IND/WBN/117/85* [AY687334]	IND85-AA	633	579	0	91.47	8.53
3	As1/Shamir/ISR/89	ISR89--A	633	561	0	88.63	11.37
4	As1/IND/63/72 [Y09949]	IND72B63	630	534	0	84.76	15.24
5	As1/TAI/85 vs As1/Kimron/ISR/57 [AY593797]	TAI85-AA	590	499	1	84.58	15.42
6	As1/YNBS/CHA/58 [AY390432]	ISR57KIM	633	531	0	83.89	16.11
7	As1/CAM/9/80	CHA58-AA	633	529	0	83.57	16.43
8	As1/PAK/1/54	CAM80-09	583	482	5	82.68	17.32
9		PAK54-01	630	507	0	80.48	19.52

nt, nucleotides

*, not a WRLFMD reference number

Serotype: ASIA1		Report date: 08/04/2005					
WRL Ref No: HKN/5/2005							
Date collected: March 2005		Topotype: none defined					
Date received by WRLFMD: 17/03/2005		Genotype/strain: none designated					
Date received for sequencing: 22/03/2005		Sequence filename: HKN05-05.SEQ					
Species: Cattle		Date sequence last updated: 07/04/2005					
Material used: BTy1		Total no. of comparisons: 328					
Region sequenced: VP1		Min. no. of nt for comparison: 300					
RT-PCR primers: As1-1C530F/NK61; As1-1C613F/NK61		Total turn-around time: 22 days					
No. of Nt determined: 633		Sequencing time: 17 days					
No. of ambiguities: 0							
Gene length: 633							
Comments:							
Ten Most Closely Related Viruses							
Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	As1/HKN/3/2005	HKN05-03	633	633	0	100	0
2	As1/HKN/7/2005	HKN05-07	633	631	0	99.68	0.32
3	As1/HKN/1/2005	HKN05-01	633	631	0	99.68	0.32
4	As1/HKN/6/2005	HKN05-06	633	630	0	99.53	0.47
5	As1/HKN/2/2005	HKN05-02	633	630	0	99.53	0.47
6	As1/HKN/8/2005	HKN05-08	633	630	0	99.53	0.47
7	As1/HKN/4/2005	HKN05-04	633	630	0	99.53	0.47
8	As1/PAK/1/2004	PAK04-01	633	616	0	97.31	2.69
9	As1/PAK/2/2004	PAK04-02	633	616	0	97.31	2.69
10	As1/PAK/69/2003	PAK03-69	633	614	0	97	3
Relationships to Reference Virus Strains							
Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	As1/IND/8/79	IND79-08	166	153	2	92.17	7.83
2	As1/IND/WBN/117/85* [AY687334]	IND85-AA	633	580	0	91.63	8.37
3	As1/Shamir/ISR/89	ISR89--A	633	560	0	88.47	11.53
4	As1/TAI/85 vs	TAI85-AA	590	500	1	84.75	15.25
5	As1/IND/63/72 [Y09949]	IND72B63	630	533	0	84.6	15.4
6	As1/Kimron/ISR/57 [AY593797]	ISR57KIM	633	532	0	84.04	15.96
7	As1/YNBS/CHA/58 [AY390432]	CHA58-AA	633	530	0	83.73	16.27
8	As1/CAM/9/80	CAM80-09	583	481	5	82.5	17.5
9	As1/PAK/1/54	PAK54-01	630	508	0	80.63	19.37
nt, nucleotides							
*, not a WRLFMD reference number							

Ref No: HKN/6/2005	Report date: 08/04/2005
Date collected: March 2005	
Date received by WRLFMD: 17/03/2005	Topotype: none defined
Date received for sequencing: 22/03/2005	Genotype/strain: none designated
Species: Cattle	Sequence filename: HKN05-06.SEQ
Material used: BTy1	Date sequence last updated: 07/04/2005
Region sequenced: VP1	Total no. of comparisons: 328
RT-PCR primers: As1-1C530F/NK61; As1-1C613F/NK61	Min. no. of nt for comparison: 300
No. of Nt determined: 633	Total turn-around time: 22 days
No. of ambiguities: 0	Sequencing time: 17 days
Gene length: 633	

Comments:

Ten Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	As1/HKN/7/2005	HKN05-07	633	632	0	99.84	0.16
2	As1/HKN/1/2005	HKN05-01	633	632	0	99.84	0.16
3	As1/HKN/2/2005	HKN05-02	633	631	0	99.68	0.32
4	As1/HKN/8/2005	HKN05-08	633	631	0	99.68	0.32
5	As1/HKN/4/2005	HKN05-04	633	631	0	99.68	0.32
6	As1/HKN/3/2005	HKN05-03	633	630	0	99.53	0.47
7	As1/HKN/5/2005	HKN05-05	633	630	0	99.53	0.47
8	As1/PAK/1/2004	PAK04-01	633	617	0	97.47	2.53
9	As1/PAK/2/2004	PAK04-02	633	617	0	97.47	2.53
10	As1/PAK/69/2003	PAK03-69	633	615	0	97.16	2.84

Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	As1/IND/WBN/117/85* [AY687334]	IND85-AA	633	581	0	91.79	8.21
2	As1/IND/8/79	IND79-08	166	152	2	91.57	8.43
3	As1/Shamir/ISR/89	ISR89--A	633	561	0	88.63	11.37
4	As1/TAI/85 vs	TAI85-AA	590	499	1	84.58	15.42
5	As1/IND/63/72 [Y09949]	IND72B63	630	532	0	84.44	15.56
6	As1/Kimron/ISR/57 [AY593797]	ISR57KIM	633	531	0	83.89	16.11
7	As1/YNBS/CHA/58 [AY390432]	CHA58-AA	633	529	0	83.57	16.43
8	As1/CAM/9/80	CAM80-09	583	480	5	82.33	17.67
9	As1/PAK/1/54	PAK54-01	630	505	0	80.16	19.84

nt, nucleotides

*, not a WRLFMD reference number

Serotype: ASIA1		Report date: 08/04/2005					
WRL Ref No: HKN/7/2005							
Date collected: March 2005		Topotype: none defined					
Date received by WRLFMD: 17/03/2005		Genotype/strain: none designated					
Date received for sequencing: 22/03/2005		Sequence filename: HKN05-07.SEQ					
Species: Cattle		Date sequence last updated: 07/04/2005					
Material used: BTy1		Total no. of comparisons: 328					
Region sequenced: VP1		Min. no. of nt for comparison: 300					
RT-PCR primers: As1-1C530F/NK61; As1-1C613F/NK61		Total turn-around time: 22 days					
No. of Nt determined: 633		Sequencing time: 17 days					
No. of ambiguities: 0							
Gene length: 633							
Comments:							
Ten Most Closely Related Viruses							
Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	As1/HKN/1/2005	HKN05-01	633	633	0	100	0
2	As1/HKN/2/2005	HKN05-02	633	632	0	99.84	0.16
3	As1/HKN/4/2005	HKN05-04	633	632	0	99.84	0.16
4	As1/HKN/8/2005	HKN05-08	633	632	0	99.84	0.16
5	As1/HKN/6/2005	HKN05-06	633	632	0	99.84	0.16
6	As1/HKN/3/2005	HKN05-03	633	631	0	99.68	0.32
7	As1/HKN/5/2005	HKN05-05	633	631	0	99.68	0.32
8	As1/PAK/1/2004	PAK04-01	633	618	0	97.63	2.37
9	As1/PAK/2/2004	PAK04-02	633	618	0	97.63	2.37
10	As1/PAK/69/2003	PAK03-69	633	616	0	97.31	2.69
Relationships to Reference Virus Strains							
Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	As1/IND/8/79	IND79-08	166	153	2	92.17	7.83
2	As1/IND/WBN/117/85* [AY687334]	IND85-AA	633	580	0	91.63	8.37
3	As1/Shamir/ISR/89	ISR89--A	633	562	0	88.78	11.22
4	As1/TAI/85 vs	TAI85-AA	590	500	1	84.75	15.25
5	As1/IND/63/72 [Y09949]	IND72B63	630	533	0	84.6	15.4
6	As1/Kimron/ISR/57 [AY593797]	ISR57KIM	633	532	0	84.04	15.96
7	As1/YNBS/CHA/58 [AY390432]	CHA58-AA	633	530	0	83.73	16.27
8	As1/CAM/9/80	CAM80-09	583	481	5	82.5	17.5
9	As1/PAK/1/54	PAK54-01	630	506	0	80.32	19.68
nt, nucleotides							
*, not a WRLFMD reference number							

Serotype: ASIA1
WRL Ref No: HKN/8/2005
Date collected: March 2005
Date received by WRLFMD: 17/03/2005
Date received for sequencing: 22/03/2005
Species: Cattle
Material used: BTy1
Region sequenced: VP1
RT-PCR primers: As1-1C530F/NK61;
As1-1C613F/NK61
No. of Nt determined: 633
No. of ambiguities: 0
Gene length: 633

Report date: 08/04/2005
Topotype: none defined
Genotype/strain: none designated
Sequence filename: HKN05-08.SEQ
Date sequence last updated: 07/04/2005
Total no. of comparisons: 328
Min. no. of nt for comparison: 300
Total turn-around time: 22 days
Sequencing time: 17 days

Comments:

Ten Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	As1/HKN/7/2005	HKN05-07	633	632	0	99.84	0.16
2	As1/HKN/1/2005	HKN05-01	633	632	0	99.84	0.16
3	As1/HKN/4/2005	HKN05-04	633	631	0	99.68	0.32
4	As1/HKN/2/2005	HKN05-02	633	631	0	99.68	0.32
5	As1/HKN/6/2005	HKN05-06	633	631	0	99.68	0.32
6	As1/HKN/3/2005	HKN05-03	633	630	0	99.53	0.47
7	As1/HKN/5/2005	HKN05-05	633	630	0	99.53	0.47
8	As1/PAK/1/2004	PAK04-01	633	617	0	97.47	2.53
9	As1/PAK/2/2004	PAK04-02	633	617	0	97.47	2.53
10	As1/PAK/69/2003	PAK03-69	633	615	0	97.16	2.84

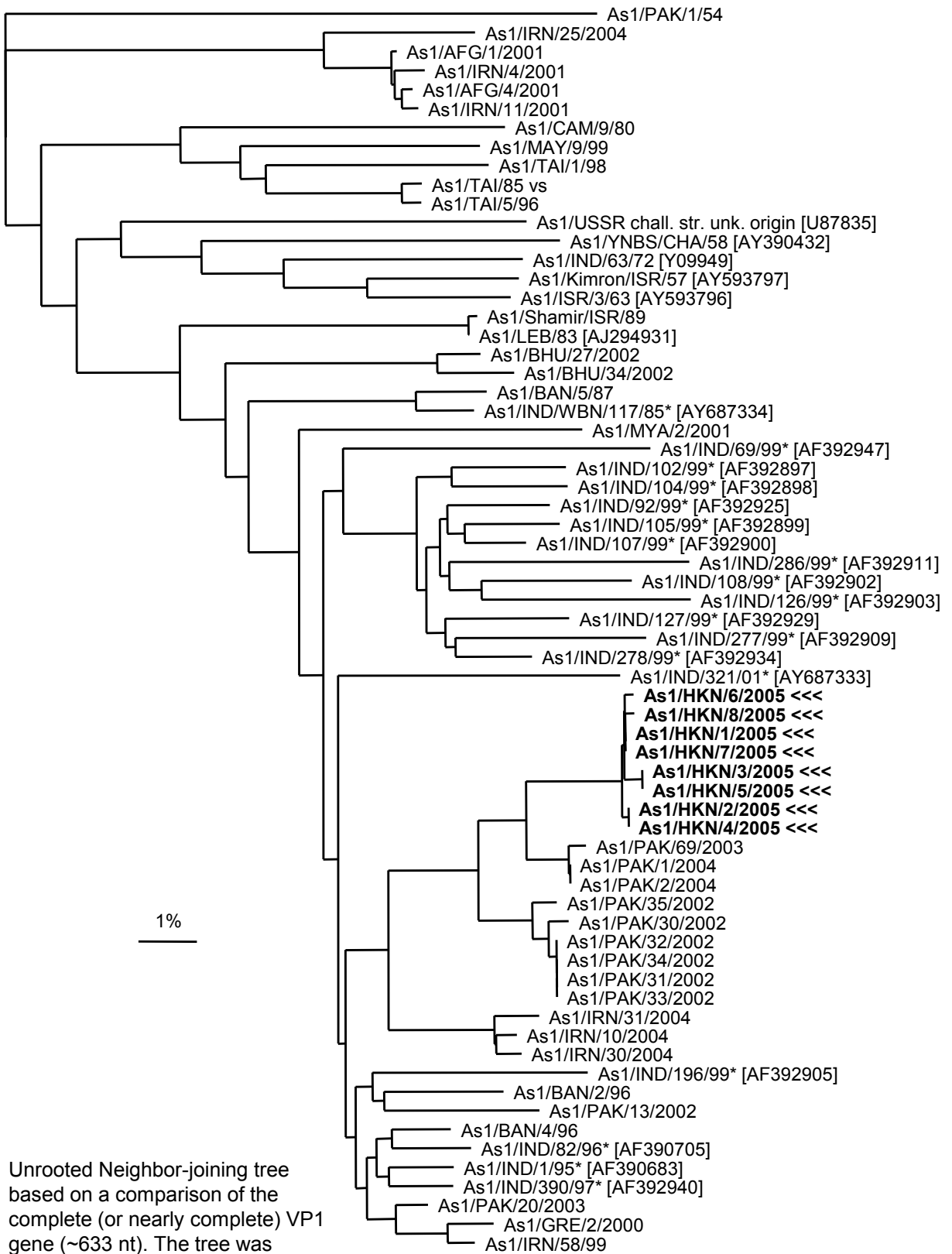
Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	As1/IND/8/79	IND79-08	166	152	2	91.57	8.43
2	As1/IND/WBN/117/85* [AY687334]	IND85-AA	633	579	0	91.47	8.53
3	As1/Shamir/ISR/89	ISR89--A	633	563	0	88.94	11.06
4	As1/TAI/85 vs	TAI85-AA	590	499	1	84.58	15.42
5	As1/IND/63/72 [Y09949]	IND72B63	630	532	0	84.44	15.56
6	As1/Kimron/ISR/57 [AY593797]	ISR57KIM	633	531	0	83.89	16.11
7	As1/YNBS/CHA/58 [AY390432]	CHA58-AA	633	529	0	83.57	16.43
8	As1/CAM/9/80	CAM80-09	583	480	5	82.33	17.67
9	As1/PAK/1/54	PAK54-01	630	505	0	80.16	19.84

nt, nucleotides

*, not a WRLFMD reference number

Report on: FMDV Asia 1 in Hong Kong in 2005



Unrooted Neighbor-joining tree based on a comparison of the complete (or nearly complete) VP1 gene (~633 nt). The tree was outgroup-rooted using PAK/1/54.