



INSTITUTE FOR ANIMAL HEALTH

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Surrey,

GU24 0NF

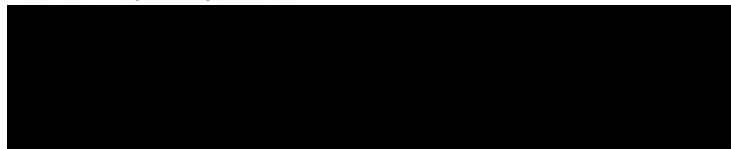
Intn Tel: 00 44 1483 232441

Tel: 01483 232441 Fax: 01483 232621

FMD Sequencing Report

Lab Reference WRL Batch Number: WRLFMD/2011/00003

Sender Details:



Date Received: 18th January 2011

Country of Origin: Pakistan

Date Reported: 8th March 2011

Dear Dr. E. Ul Haq Khan,

Re: Serotype Asia 1

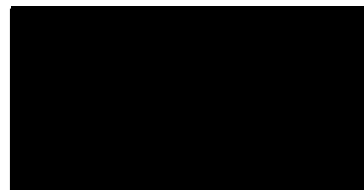
Sequencing work has now been completed in respect of the samples you submitted and the details are as attached. Please note that all of our phylogenetic trees can be accessed via the internet at:

<http://www.wrlfmd.org/>

Results Approved By:



Official Stamp:



Date: 09/3/2011



To help us improve the quality of our service, please send any suggestions or requests to the Reference Laboratory by fax (+44 (0) 1483 232621 or email: elizabeth.wilson@bbsrc.ac.uk)

FAO World Reference Laboratory for Foot-and-Mouth Disease (WRLFMD)

Genotyping Report

Report Date for this Batch: 7 March 2011

FMDV type Asia 1

Country: Pakistan

Period: 2010-2011

No. of samples: 26

BATCH: WRLFMD/2011/00003



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FAO World Reference Laboratory for FMD Genotyping Report

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Serotype: ASIA1	Report date: 07/03/2011
WRLFMD Ref No: PAK/106/2010	Reported by: N.J. Knowles
Batch No: WRLFMD/2011/00003	Checked by: D.P. King
Sender Ref: PBW8	
Location: Bahawalpur, Punjab, Pakistan	Topotype: ASIA
Date collected: 15/12/2010	Genotype/strain: Unnamed
Date received by WRLFMD: 18/01/2011	Sequence filename: PAK10106.SEQ
Date received for sequencing: 07/02/2011	Date sequence last updated: 09/02/2011
Species: Buffalo	No. of Nt determined: 633
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 633
RT-PCR primers: As1-1C530F/EUR-2B52R	Total no. of comparisons: 361
As1-1C613F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 48 days
	Sequencing time: 28 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/PAK/108/2010	PAK10108	633	633	0	100.00	0.00	ASIA	Unnamed
2	Asia1/PAK/11/2011	PAK11-11	633	633	0	100.00	0.00	ASIA	Unnamed
3	Asia1/PAK/110/2010	PAK10110	633	633	0	100.00	0.00	ASIA	Unnamed
4	Asia1/PAK/111/2010	PAK10111	633	633	0	100.00	0.00	ASIA	Unnamed
5	Asia1/PAK/12/2011	PAK11-12	633	633	0	100.00	0.00	ASIA	Unnamed
6	Asia1/PAK/13/2011	PAK11-13	633	633	0	100.00	0.00	ASIA	Unnamed
7	Asia1/PAK/14/2011	PAK11-14	633	633	0	100.00	0.00	ASIA	Unnamed
8	Asia1/PAK/15/2011	PAK11-15	633	633	0	100.00	0.00	ASIA	Unnamed
9	Asia1/PAK/16/2011	PAK11-16	633	633	0	100.00	0.00	ASIA	Unnamed
10	Asia1/PAK/33/2011	PAK11-33	633	633	0	100.00	0.00	ASIA	Unnamed
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/AFG/1/2001 (DQ121109)	AFG01-01	633	576	0	91.00	9.00	ASIA	Group I
2	Asia1/IND/762/2003* (DQ101240)	IND03-AB	633	540	0	85.31	14.69	ASIA	Group III
3	Asia1/IND/63/72* (AY304994)	IND72C63	630	535	0	84.92	15.08	ASIA	Unnamed
4	Asia1/IND/18/80 (DQ121116)	IND80-18	633	536	0	84.68	15.32	ASIA	Group V
5	Asia1/YNBS/CHA/58 (AY390432)	CHA58-AA	633	533	0	84.20	15.80	ASIA	Unnamed
6	Asia1/Shamir/ISR/89	ISR89--A	633	532	0	84.04	15.96	ASIA	Unnamed
7	Asia1/HKN/19/74	HKN74-19	633	531	0	83.89	16.11	ASIA	Unnamed
8	Asia1/IND/14/95* (AF390678)	IND95-AA	633	531	0	83.89	16.11	ASIA	Unnamed
9	Asia1/IRN/10/2004 (DQ121119)	IRN04-10	633	526	0	83.10	16.90	ASIA	Group VIb
10	Asia1/PAK/1/54 (AY593795)	PAK54A01	630	515	0	81.75	18.25	ASIA	Unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: ASIA1	Report date: 07/03/2011
WRLFMD Ref No: PAK/108/2010	Reported by: N.J. Knowles
Batch No: WRLFMD/2011/00003	Checked by: D.P. King
Sender Ref: PKR8	
Location: Karachi, Sindh, Pakistan	Topotype: ASIA
Date collected: 24/12/2010	Genotype/strain: Unnamed
Date received by WRLFMD: 18/01/2011	Sequence filename: PAK10108.SEQ
Date received for sequencing: 07/02/2011	Date sequence last updated: 09/02/2011
Species: Cattle	No. of Nt determined: 633
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 633
RT-PCR primers: As1-1C530F/EUR-2B52R	Total no. of comparisons: 361
As1-1C613F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 48 days
	Sequencing time: 28 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/PAK/106/2010	PAK10106	633	633	0	100.00	0.00	ASIA	Unnamed
2	Asia1/PAK/11/2011	PAK11-11	633	633	0	100.00	0.00	ASIA	Unnamed
3	Asia1/PAK/110/2010	PAK10110	633	633	0	100.00	0.00	ASIA	Unnamed
4	Asia1/PAK/111/2010	PAK10111	633	633	0	100.00	0.00	ASIA	Unnamed
5	Asia1/PAK/12/2011	PAK11-12	633	633	0	100.00	0.00	ASIA	Unnamed
6	Asia1/PAK/13/2011	PAK11-13	633	633	0	100.00	0.00	ASIA	Unnamed
7	Asia1/PAK/14/2011	PAK11-14	633	633	0	100.00	0.00	ASIA	Unnamed
8	Asia1/PAK/15/2011	PAK11-15	633	633	0	100.00	0.00	ASIA	Unnamed
9	Asia1/PAK/16/2011	PAK11-16	633	633	0	100.00	0.00	ASIA	Unnamed
10	Asia1/PAK/33/2011	PAK11-33	633	633	0	100.00	0.00	ASIA	Unnamed
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/AFG/1/2001 (DQ121109)	AFG01-01	633	576	0	91.00	9.00	ASIA	Group I
2	Asia1/IND/762/2003* (DQ101240)	IND03-AB	633	540	0	85.31	14.69	ASIA	Group III
3	Asia1/IND/63/72* (AY304994)	IND72C63	630	535	0	84.92	15.08	ASIA	Unnamed
4	Asia1/IND/18/80 (DQ121116)	IND80-18	633	536	0	84.68	15.32	ASIA	Group V
5	Asia1/YNBS/CHA/58 (AY390432)	CHA58-AA	633	533	0	84.20	15.80	ASIA	Unnamed
6	Asia1/Shamir/ISR/89	ISR89--A	633	532	0	84.04	15.96	ASIA	Unnamed
7	Asia1/HKN/19/74	HKN74-19	633	531	0	83.89	16.11	ASIA	Unnamed
8	Asia1/IND/14/95* (AF390678)	IND95-AA	633	531	0	83.89	16.11	ASIA	Unnamed
9	Asia1/IRN/10/2004 (DQ121119)	IRN04-10	633	526	0	83.10	16.90	ASIA	Group VIb
10	Asia1/PAK/1/54 (AY593795)	PAK54A01	630	515	0	81.75	18.25	ASIA	Unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: ASIA1	Report date: 07/03/2011
WRLFMD Ref No: PAK/109/2010	Reported by: N.J. Knowles
Batch No: WRLFMD/2011/00003	Checked by: D.P. King
Sender Ref: PKR9	
Location: Karachi, Sindh, Pakistan	Topotype: ASIA
Date collected: 24/12/2010	Genotype/strain: Unnamed
Date received by WRLFMD: 18/01/2011	Sequence filename: PAK10109.SEQ
Date received for sequencing: 07/02/2011	Date sequence last updated: 09/02/2011
Species: Cattle	No. of Nt determined: 633
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 633
RT-PCR primers: As1-1C530F/EUR-2B52R	Total no. of comparisons: 361
As1-1C613F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 48 days
	Sequencing time: 28 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/PAK/32/2011	PAK11-32	633	633	0	100.00	0.00	ASIA	Unnamed
2	Asia1/PAK/38/2011	PAK11-38	633	633	0	100.00	0.00	ASIA	Unnamed
3	Asia1/PAK/106/2010	PAK10106	633	631	0	99.68	0.32	ASIA	Unnamed
4	Asia1/PAK/108/2010	PAK10108	633	631	0	99.68	0.32	ASIA	Unnamed
5	Asia1/PAK/11/2011	PAK11-11	633	631	0	99.68	0.32	ASIA	Unnamed
6	Asia1/PAK/110/2010	PAK10110	633	631	0	99.68	0.32	ASIA	Unnamed
7	Asia1/PAK/111/2010	PAK10111	633	631	0	99.68	0.32	ASIA	Unnamed
8	Asia1/PAK/12/2011	PAK11-12	633	631	0	99.68	0.32	ASIA	Unnamed
9	Asia1/PAK/13/2011	PAK11-13	633	631	0	99.68	0.32	ASIA	Unnamed
10	Asia1/PAK/14/2011	PAK11-14	633	631	0	99.68	0.32	ASIA	Unnamed
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/AFG/1/2001 (DQ121109)	AFG01-01	633	574	0	90.68	9.32	ASIA	Group I
2	Asia1/IND/762/2003* (DQ101240)	IND03-AB	633	538	0	84.99	15.01	ASIA	Group III
3	Asia1/IND/63/72* (AY304994)	IND72C63	630	533	0	84.60	15.40	ASIA	Unnamed
4	Asia1/IND/18/80 (DQ121116)	IND80-18	633	534	0	84.36	15.64	ASIA	Group V
5	Asia1/YNBS/CHA/58 (AY390432)	CHA58-AA	633	531	0	83.89	16.11	ASIA	Unnamed
6	Asia1/Shamir/ISR/89	ISR89--A	633	530	0	83.73	16.27	ASIA	Unnamed
7	Asia1/HKN/19/74	HKN74-19	633	529	0	83.57	16.43	ASIA	Unnamed
8	Asia1/IND/14/95* (AF390678)	IND95-AA	633	529	0	83.57	16.43	ASIA	Unnamed
9	Asia1/IRN/10/2004 (DQ121119)	IRN04-10	633	524	0	82.78	17.22	ASIA	Group VIb
10	Asia1/PAK/1/54 (AY593795)	PAK54A01	630	515	0	81.75	18.25	ASIA	Unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: ASIA1	Report date: 07/03/2011
WRLFMD Ref No: PAK/110/2010	Reported by: N.J. Knowles
Batch No: WRLFMD/2011/00003	Checked by: D.P. King
Sender Ref: PKR10	
Location: Karachi, Sindh, Pakistan	Topotype: ASIA
Date collected: 24/12/2010	Genotype/strain: Unnamed
Date received by WRLFMD: 18/01/2011	Sequence filename: PAK10110.SEQ
Date received for sequencing: 07/02/2011	Date sequence last updated: 09/02/2011
Species: Cattle	No. of Nt determined: 633
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 633
RT-PCR primers: As1-1C530F/EUR-2B52R	Total no. of comparisons: 361
As1-1C613F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 48 days
	Sequencing time: 28 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/PAK/106/2010	PAK10106	633	633	0	100.00	0.00	ASIA	Unnamed
2	Asia1/PAK/108/2010	PAK10108	633	633	0	100.00	0.00	ASIA	Unnamed
3	Asia1/PAK/11/2011	PAK11-11	633	633	0	100.00	0.00	ASIA	Unnamed
4	Asia1/PAK/111/2010	PAK10111	633	633	0	100.00	0.00	ASIA	Unnamed
5	Asia1/PAK/12/2011	PAK11-12	633	633	0	100.00	0.00	ASIA	Unnamed
6	Asia1/PAK/13/2011	PAK11-13	633	633	0	100.00	0.00	ASIA	Unnamed
7	Asia1/PAK/14/2011	PAK11-14	633	633	0	100.00	0.00	ASIA	Unnamed
8	Asia1/PAK/15/2011	PAK11-15	633	633	0	100.00	0.00	ASIA	Unnamed
9	Asia1/PAK/16/2011	PAK11-16	633	633	0	100.00	0.00	ASIA	Unnamed
10	Asia1/PAK/33/2011	PAK11-33	633	633	0	100.00	0.00	ASIA	Unnamed
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/AFG/1/2001 (DQ121109)	AFG01-01	633	576	0	91.00	9.00	ASIA	Group I
2	Asia1/IND/762/2003* (DQ101240)	IND03-AB	633	540	0	85.31	14.69	ASIA	Group III
3	Asia1/IND/63/72* (AY304994)	IND72C63	630	535	0	84.92	15.08	ASIA	Unnamed
4	Asia1/IND/18/80 (DQ121116)	IND80-18	633	536	0	84.68	15.32	ASIA	Group V
5	Asia1/YNBS/CHA/58 (AY390432)	CHA58-AA	633	533	0	84.20	15.80	ASIA	Unnamed
6	Asia1/Shamir/ISR/89	ISR89--A	633	532	0	84.04	15.96	ASIA	Unnamed
7	Asia1/HKN/19/74	HKN74-19	633	531	0	83.89	16.11	ASIA	Unnamed
8	Asia1/IND/14/95* (AF390678)	IND95-AA	633	531	0	83.89	16.11	ASIA	Unnamed
9	Asia1/IRN/10/2004 (DQ121119)	IRN04-10	633	526	0	83.10	16.90	ASIA	Group VIb
10	Asia1/PAK/1/54 (AY593795)	PAK54A01	630	515	0	81.75	18.25	ASIA	Unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: ASIA1	Report date: 07/03/2011
WRLFMD Ref No: PAK/111/2010	Reported by: N.J. Knowles
Batch No: WRLFMD/2011/00003	Checked by: D.P. King
Sender Ref: PKR11	
Location: Karachi, Sindh, Pakistan	Topotype: ASIA
Date collected: 24/12/2010	Genotype/strain: Unnamed
Date received by WRLFMD: 18/01/2011	Sequence filename: PAK10111.SEQ
Date received for sequencing: 07/02/2011	Date sequence last updated: 09/02/2011
Species: Cattle	No. of Nt determined: 633
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 633
RT-PCR primers: As1-1C530F/EUR-2B52R	Total no. of comparisons: 361
As1-1C613F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 48 days
	Sequencing time: 28 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/PAK/106/2010	PAK10106	633	633	0	100.00	0.00	ASIA	Unnamed
2	Asia1/PAK/108/2010	PAK10108	633	633	0	100.00	0.00	ASIA	Unnamed
3	Asia1/PAK/11/2011	PAK11-11	633	633	0	100.00	0.00	ASIA	Unnamed
4	Asia1/PAK/110/2010	PAK10110	633	633	0	100.00	0.00	ASIA	Unnamed
5	Asia1/PAK/12/2011	PAK11-12	633	633	0	100.00	0.00	ASIA	Unnamed
6	Asia1/PAK/13/2011	PAK11-13	633	633	0	100.00	0.00	ASIA	Unnamed
7	Asia1/PAK/14/2011	PAK11-14	633	633	0	100.00	0.00	ASIA	Unnamed
8	Asia1/PAK/15/2011	PAK11-15	633	633	0	100.00	0.00	ASIA	Unnamed
9	Asia1/PAK/16/2011	PAK11-16	633	633	0	100.00	0.00	ASIA	Unnamed
10	Asia1/PAK/33/2011	PAK11-33	633	633	0	100.00	0.00	ASIA	Unnamed
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/AFG/1/2001 (DQ121109)	AFG01-01	633	576	0	91.00	9.00	ASIA	Group I
2	Asia1/IND/762/2003* (DQ101240)	IND03-AB	633	540	0	85.31	14.69	ASIA	Group III
3	Asia1/IND/63/72* (AY304994)	IND72C63	630	535	0	84.92	15.08	ASIA	Unnamed
4	Asia1/IND/18/80 (DQ121116)	IND80-18	633	536	0	84.68	15.32	ASIA	Group V
5	Asia1/YNBS/CHA/58 (AY390432)	CHA58-AA	633	533	0	84.20	15.80	ASIA	Unnamed
6	Asia1/Shamir/ISR/89	ISR89--A	633	532	0	84.04	15.96	ASIA	Unnamed
7	Asia1/HKN/19/74	HKN74-19	633	531	0	83.89	16.11	ASIA	Unnamed
8	Asia1/IND/14/95* (AF390678)	IND95-AA	633	531	0	83.89	16.11	ASIA	Unnamed
9	Asia1/IRN/10/2004 (DQ121119)	IRN04-10	633	526	0	83.10	16.90	ASIA	Group VIb
10	Asia1/PAK/1/54 (AY593795)	PAK54A01	630	515	0	81.75	18.25	ASIA	Unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: ASIA1	Report date: 07/03/2011
WRLFMD Ref No: PAK/6/2011	Reported by: N.J. Knowles
Batch No: WRLFMD/2011/00003	Checked by: D.P. King
Sender Ref: PKR20	
Location: Karachi, Sindh, Pakistan	Topotype: ASIA
Date collected: 03/01/2011	Genotype/strain: Unnamed
Date received by WRLFMD: 18/01/2011	Sequence filename: PAK11-06.SEQ
Date received for sequencing: 14/02/2011	Date sequence last updated: 15/02/2011
Species: Buffalo	No. of Nt determined: 633
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 633
RT-PCR primers: As1-1C530F/EUR-2B52R	Total no. of comparisons: 361
As1-1C613F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 48 days
	Sequencing time: 21 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/PAK/47/2011	PAK11-47	633	633	0	100.00	0.00	ASIA	Unnamed
2	Asia1/PAK/106/2010	PAK10106	633	631	0	99.68	0.32	ASIA	Unnamed
3	Asia1/PAK/108/2010	PAK10108	633	631	0	99.68	0.32	ASIA	Unnamed
4	Asia1/PAK/11/2011	PAK11-11	633	631	0	99.68	0.32	ASIA	Unnamed
5	Asia1/PAK/110/2010	PAK10110	633	631	0	99.68	0.32	ASIA	Unnamed
6	Asia1/PAK/111/2010	PAK10111	633	631	0	99.68	0.32	ASIA	Unnamed
7	Asia1/PAK/12/2011	PAK11-12	633	631	0	99.68	0.32	ASIA	Unnamed
8	Asia1/PAK/13/2011	PAK11-13	633	631	0	99.68	0.32	ASIA	Unnamed
9	Asia1/PAK/14/2011	PAK11-14	633	631	0	99.68	0.32	ASIA	Unnamed
10	Asia1/PAK/15/2011	PAK11-15	633	631	0	99.68	0.32	ASIA	Unnamed
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/AFG/1/2001 (DQ121109)	AFG01-01	633	574	0	90.68	9.32	ASIA	Group I
2	Asia1/IND/762/2003* (DQ101240)	IND03-AB	633	538	0	84.99	15.01	ASIA	Group III
3	Asia1/IND/63/72* (AY304994)	IND72C63	630	533	0	84.60	15.40	ASIA	Unnamed
4	Asia1/IND/18/80 (DQ121116)	IND80-18	633	534	0	84.36	15.64	ASIA	Group V
5	Asia1/YNBS/CHA/58 (AY390432)	CHA58-AA	633	531	0	83.89	16.11	ASIA	Unnamed
6	Asia1/Shamir/ISR/89	ISR89--A	633	530	0	83.73	16.27	ASIA	Unnamed
7	Asia1/HKN/19/74	HKN74-19	633	529	0	83.57	16.43	ASIA	Unnamed
8	Asia1/IND/14/95* (AF390678)	IND95-AA	633	529	0	83.57	16.43	ASIA	Unnamed
9	Asia1/IRN/10/2004 (DQ121119)	IRN04-10	633	524	0	82.78	17.22	ASIA	Group VIb
10	Asia1/PAK/1/54 (AY593795)	PAK54A01	630	514	0	81.59	18.41	ASIA	Unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: ASIA1	Report date: 07/03/2011
WRLFMD Ref No: PAK/7/2011	Reported by: N.J. Knowles
Batch No: WRLFMD/2011/00003	Checked by: D.P. King
Sender Ref: PKR21	
Location: Karachi, Sindh, Pakistan	Topotype: ASIA
Date collected: 03/01/2011	Genotype/strain: Unnamed
Date received by WRLFMD: 18/01/2011	Sequence filename: PAK11-07.SEQ
Date received for sequencing: 14/02/2011	Date sequence last updated: 15/02/2011
Species: Buffalo	No. of Nt determined: 633
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 633
RT-PCR primers: As1-1C530F/EUR-2B52R	Total no. of comparisons: 361
As1-1C613F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 48 days
	Sequencing time: 21 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/PAK/106/2010	PAK10106	633	633	0	100.00	0.00	ASIA	Unnamed
2	Asia1/PAK/108/2010	PAK10108	633	633	0	100.00	0.00	ASIA	Unnamed
3	Asia1/PAK/11/2011	PAK11-11	633	633	0	100.00	0.00	ASIA	Unnamed
4	Asia1/PAK/110/2010	PAK10110	633	633	0	100.00	0.00	ASIA	Unnamed
5	Asia1/PAK/111/2010	PAK10111	633	633	0	100.00	0.00	ASIA	Unnamed
6	Asia1/PAK/12/2011	PAK11-12	633	633	0	100.00	0.00	ASIA	Unnamed
7	Asia1/PAK/13/2011	PAK11-13	633	633	0	100.00	0.00	ASIA	Unnamed
8	Asia1/PAK/14/2011	PAK11-14	633	633	0	100.00	0.00	ASIA	Unnamed
9	Asia1/PAK/15/2011	PAK11-15	633	633	0	100.00	0.00	ASIA	Unnamed
10	Asia1/PAK/16/2011	PAK11-16	633	633	0	100.00	0.00	ASIA	Unnamed
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/AFG/1/2001 (DQ121109)	AFG01-01	633	576	0	91.00	9.00	ASIA	Group I
2	Asia1/IND/762/2003* (DQ101240)	IND03-AB	633	540	0	85.31	14.69	ASIA	Group III
3	Asia1/IND/63/72* (AY304994)	IND72C63	630	535	0	84.92	15.08	ASIA	Unnamed
4	Asia1/IND/18/80 (DQ121116)	IND80-18	633	536	0	84.68	15.32	ASIA	Group V
5	Asia1/YNBS/CHA/58 (AY390432)	CHA58-AA	633	533	0	84.20	15.80	ASIA	Unnamed
6	Asia1/Shamir/ISR/89	ISR89--A	633	532	0	84.04	15.96	ASIA	Unnamed
7	Asia1/HKN/19/74	HKN74-19	633	531	0	83.89	16.11	ASIA	Unnamed
8	Asia1/IND/14/95* (AF390678)	IND95-AA	633	531	0	83.89	16.11	ASIA	Unnamed
9	Asia1/IRN/10/2004 (DQ121119)	IRN04-10	633	526	0	83.10	16.90	ASIA	Group VIb
10	Asia1/PAK/1/54 (AY593795)	PAK54A01	630	515	0	81.75	18.25	ASIA	Unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: ASIA1	Report date: 07/03/2011
WRLFMD Ref No: PAK/8/2011	Reported by: N.J. Knowles
Batch No: WRLFMD/2011/00003	Checked by: D.P. King
Sender Ref: PKR22	
Location: Karachi, Sindh, Pakistan	Topotype: ASIA
Date collected: 03/01/2011	Genotype/strain: Unnamed
Date received by WRLFMD: 18/01/2011	Sequence filename: PAK11-08.SEQ
Date received for sequencing: 14/02/2011	Date sequence last updated: 15/02/2011
Species: Buffalo	No. of Nt determined: 633
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 633
RT-PCR primers: As1-1C530F/EUR-2B52R	Total no. of comparisons: 361
As1-1C613F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 48 days
	Sequencing time: 21 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/PAK/106/2010	PAK10106	633	633	0	100.00	0.00	ASIA	Unnamed
2	Asia1/PAK/108/2010	PAK10108	633	633	0	100.00	0.00	ASIA	Unnamed
3	Asia1/PAK/11/2011	PAK11-11	633	633	0	100.00	0.00	ASIA	Unnamed
4	Asia1/PAK/110/2010	PAK10110	633	633	0	100.00	0.00	ASIA	Unnamed
5	Asia1/PAK/111/2010	PAK10111	633	633	0	100.00	0.00	ASIA	Unnamed
6	Asia1/PAK/12/2011	PAK11-12	633	633	0	100.00	0.00	ASIA	Unnamed
7	Asia1/PAK/13/2011	PAK11-13	633	633	0	100.00	0.00	ASIA	Unnamed
8	Asia1/PAK/14/2011	PAK11-14	633	633	0	100.00	0.00	ASIA	Unnamed
9	Asia1/PAK/15/2011	PAK11-15	633	633	0	100.00	0.00	ASIA	Unnamed
10	Asia1/PAK/16/2011	PAK11-16	633	633	0	100.00	0.00	ASIA	Unnamed
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/AFG/1/2001 (DQ121109)	AFG01-01	633	576	0	91.00	9.00	ASIA	Group I
2	Asia1/IND/762/2003* (DQ101240)	IND03-AB	633	540	0	85.31	14.69	ASIA	Group III
3	Asia1/IND/63/72* (AY304994)	IND72C63	630	535	0	84.92	15.08	ASIA	Unnamed
4	Asia1/IND/18/80 (DQ121116)	IND80-18	633	536	0	84.68	15.32	ASIA	Group V
5	Asia1/YNBS/CHA/58 (AY390432)	CHA58-AA	633	533	0	84.20	15.80	ASIA	Unnamed
6	Asia1/Shamir/ISR/89	ISR89--A	633	532	0	84.04	15.96	ASIA	Unnamed
7	Asia1/HKN/19/74	HKN74-19	633	531	0	83.89	16.11	ASIA	Unnamed
8	Asia1/IND/14/95* (AF390678)	IND95-AA	633	531	0	83.89	16.11	ASIA	Unnamed
9	Asia1/IRN/10/2004 (DQ121119)	IRN04-10	633	526	0	83.10	16.90	ASIA	Group VIb
10	Asia1/PAK/1/54 (AY593795)	PAK54A01	630	515	0	81.75	18.25	ASIA	Unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: ASIA1	Report date: 07/03/2011
WRLFMD Ref No: PAK/11/2011	Reported by: N.J. Knowles
Batch No: WRLFMD/2011/00003	Checked by: D.P. King
Sender Ref: PKR17	
Location: Karachi, Sindh, Pakistan	Topotype: ASIA
Date collected: 04/01/2011	Genotype/strain: Unnamed
Date received by WRLFMD: 18/01/2011	Sequence filename: PAK11-11.SEQ
Date received for sequencing: 14/02/2011	Date sequence last updated: 15/02/2011
Species: Cattle	No. of Nt determined: 633
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 633
RT-PCR primers: As1-1C530F/EUR-2B52R	Total no. of comparisons: 361
As1-1C613F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 48 days
	Sequencing time: 21 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/PAK/106/2010	PAK10106	633	633	0	100.00	0.00	ASIA	Unnamed
2	Asia1/PAK/108/2010	PAK10108	633	633	0	100.00	0.00	ASIA	Unnamed
3	Asia1/PAK/110/2010	PAK10110	633	633	0	100.00	0.00	ASIA	Unnamed
4	Asia1/PAK/111/2010	PAK10111	633	633	0	100.00	0.00	ASIA	Unnamed
5	Asia1/PAK/12/2011	PAK11-12	633	633	0	100.00	0.00	ASIA	Unnamed
6	Asia1/PAK/13/2011	PAK11-13	633	633	0	100.00	0.00	ASIA	Unnamed
7	Asia1/PAK/14/2011	PAK11-14	633	633	0	100.00	0.00	ASIA	Unnamed
8	Asia1/PAK/15/2011	PAK11-15	633	633	0	100.00	0.00	ASIA	Unnamed
9	Asia1/PAK/16/2011	PAK11-16	633	633	0	100.00	0.00	ASIA	Unnamed
10	Asia1/PAK/33/2011	PAK11-33	633	633	0	100.00	0.00	ASIA	Unnamed
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/AFG/1/2001 (DQ121109)	AFG01-01	633	576	0	91.00	9.00	ASIA	Group I
2	Asia1/IND/762/2003* (DQ101240)	IND03-AB	633	540	0	85.31	14.69	ASIA	Group III
3	Asia1/IND/63/72* (AY304994)	IND72C63	630	535	0	84.92	15.08	ASIA	Unnamed
4	Asia1/IND/18/80 (DQ121116)	IND80-18	633	536	0	84.68	15.32	ASIA	Group V
5	Asia1/YNBS/CHA/58 (AY390432)	CHA58-AA	633	533	0	84.20	15.80	ASIA	Unnamed
6	Asia1/Shamir/ISR/89	ISR89--A	633	532	0	84.04	15.96	ASIA	Unnamed
7	Asia1/HKN/19/74	HKN74-19	633	531	0	83.89	16.11	ASIA	Unnamed
8	Asia1/IND/14/95* (AF390678)	IND95-AA	633	531	0	83.89	16.11	ASIA	Unnamed
9	Asia1/IRN/10/2004 (DQ121119)	IRN04-10	633	526	0	83.10	16.90	ASIA	Group VIb
10	Asia1/PAK/1/54 (AY593795)	PAK54A01	630	515	0	81.75	18.25	ASIA	Unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: ASIA1 WRLFMD Ref No: PAK/12/2011 Batch No: WRLFMD/2011/00003 Sender Ref: PKR18 Location: Karachi, Sindh, Pakistan Date collected: 04/01/2011 Date received by WRLFMD: 18/01/2011 Date received for sequencing: 14/02/2011 Species: Cattle Material used: BTy1 Region sequenced: VP1 RT-PCR primers: As1-1C530F/EUR-2B52R As1-1C613F/EUR-2B52R	Report date: 07/03/2011 Reported by: N.J. Knowles Checked by: D.P. King Topotype: ASIA Genotype/strain: Unnamed Sequence filename: PAK11-12.SEQ Date sequence last updated: 15/02/2011 No. of Nt determined: 633 No. of ambiguities: 0 Gene length: 633 Total no. of comparisons: 361 Min. no. of nt for comparison: 600 Total turn-around time: 48 days Sequencing time: 21 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/PAK/106/2010	PAK10106	633	633	0	100.00	0.00	ASIA	Unnamed
2	Asia1/PAK/108/2010	PAK10108	633	633	0	100.00	0.00	ASIA	Unnamed
3	Asia1/PAK/11/2011	PAK11-11	633	633	0	100.00	0.00	ASIA	Unnamed
4	Asia1/PAK/110/2010	PAK10110	633	633	0	100.00	0.00	ASIA	Unnamed
5	Asia1/PAK/111/2010	PAK10111	633	633	0	100.00	0.00	ASIA	Unnamed
6	Asia1/PAK/13/2011	PAK11-13	633	633	0	100.00	0.00	ASIA	Unnamed
7	Asia1/PAK/14/2011	PAK11-14	633	633	0	100.00	0.00	ASIA	Unnamed
8	Asia1/PAK/15/2011	PAK11-15	633	633	0	100.00	0.00	ASIA	Unnamed
9	Asia1/PAK/16/2011	PAK11-16	633	633	0	100.00	0.00	ASIA	Unnamed
10	Asia1/PAK/33/2011	PAK11-33	633	633	0	100.00	0.00	ASIA	Unnamed
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/AFG/1/2001 (DQ121109)	AFG01-01	633	576	0	91.00	9.00	ASIA	Group I
2	Asia1/IND/762/2003* (DQ101240)	IND03-AB	633	540	0	85.31	14.69	ASIA	Group III
3	Asia1/IND/63/72* (AY304994)	IND72C63	630	535	0	84.92	15.08	ASIA	Unnamed
4	Asia1/IND/18/80 (DQ121116)	IND80-18	633	536	0	84.68	15.32	ASIA	Group V
5	Asia1/YNBS/CHA/58 (AY390432)	CHA58-AA	633	533	0	84.20	15.80	ASIA	Unnamed
6	Asia1/Shamir/ISR/89	ISR89--A	633	532	0	84.04	15.96	ASIA	Unnamed
7	Asia1/HKN/19/74	HKN74-19	633	531	0	83.89	16.11	ASIA	Unnamed
8	Asia1/IND/14/95* (AF390678)	IND95-AA	633	531	0	83.89	16.11	ASIA	Unnamed
9	Asia1/IRN/10/2004 (DQ121119)	IRN04-10	633	526	0	83.10	16.90	ASIA	Group VIb
10	Asia1/PAK/1/54 (AY593795)	PAK54A01	630	515	0	81.75	18.25	ASIA	Unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: ASIA1	Report date: 07/03/2011
WRLFMD Ref No: PAK/13/2011	Reported by: N.J. Knowles
Batch No: WRLFMD/2011/00003	Checked by: D.P. King
Sender Ref: PKR19	
Location: Karachi, Sindh, Pakistan	Topotype: ASIA
Date collected: 04/01/2011	Genotype/strain: Unnamed
Date received by WRLFMD: 18/01/2011	Sequence filename: PAK11-13.SEQ
Date received for sequencing: 14/02/2011	Date sequence last updated: 15/02/2011
Species: Cattle	No. of Nt determined: 633
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 633
RT-PCR primers: As1-1C530F/EUR-2B52R	Total no. of comparisons: 361
As1-1C613F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 48 days
	Sequencing time: 21 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/PAK/106/2010	PAK10106	633	633	0	100.00	0.00	ASIA	Unnamed
2	Asia1/PAK/108/2010	PAK10108	633	633	0	100.00	0.00	ASIA	Unnamed
3	Asia1/PAK/11/2011	PAK11-11	633	633	0	100.00	0.00	ASIA	Unnamed
4	Asia1/PAK/110/2010	PAK10110	633	633	0	100.00	0.00	ASIA	Unnamed
5	Asia1/PAK/111/2010	PAK10111	633	633	0	100.00	0.00	ASIA	Unnamed
6	Asia1/PAK/12/2011	PAK11-12	633	633	0	100.00	0.00	ASIA	Unnamed
7	Asia1/PAK/14/2011	PAK11-14	633	633	0	100.00	0.00	ASIA	Unnamed
8	Asia1/PAK/15/2011	PAK11-15	633	633	0	100.00	0.00	ASIA	Unnamed
9	Asia1/PAK/16/2011	PAK11-16	633	633	0	100.00	0.00	ASIA	Unnamed
10	Asia1/PAK/33/2011	PAK11-33	633	633	0	100.00	0.00	ASIA	Unnamed
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/AFG/1/2001 (DQ121109)	AFG01-01	633	576	0	91.00	9.00	ASIA	Group I
2	Asia1/IND/762/2003* (DQ101240)	IND03-AB	633	540	0	85.31	14.69	ASIA	Group III
3	Asia1/IND/63/72* (AY304994)	IND72C63	630	535	0	84.92	15.08	ASIA	Unnamed
4	Asia1/IND/18/80 (DQ121116)	IND80-18	633	536	0	84.68	15.32	ASIA	Group V
5	Asia1/YNBS/CHA/58 (AY390432)	CHA58-AA	633	533	0	84.20	15.80	ASIA	Unnamed
6	Asia1/Shamir/ISR/89	ISR89--A	633	532	0	84.04	15.96	ASIA	Unnamed
7	Asia1/HKN/19/74	HKN74-19	633	531	0	83.89	16.11	ASIA	Unnamed
8	Asia1/IND/14/95* (AF390678)	IND95-AA	633	531	0	83.89	16.11	ASIA	Unnamed
9	Asia1/IRN/10/2004 (DQ121119)	IRN04-10	633	526	0	83.10	16.90	ASIA	Group VIb
10	Asia1/PAK/1/54 (AY593795)	PAK54A01	630	515	0	81.75	18.25	ASIA	Unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: ASIA1	Report date: 07/03/2011
WRLFMD Ref No: PAK/14/2011	Reported by: N.J. Knowles
Batch No: WRLFMD/2011/00003	Checked by: D.P. King
Sender Ref: PKR23	
Location: Karachi, Sindh, Pakistan	Topotype: ASIA
Date collected: 05/01/2011	Genotype/strain: Unnamed
Date received by WRLFMD: 18/01/2011	Sequence filename: PAK11-14.SEQ
Date received for sequencing: 14/02/2011	Date sequence last updated: 15/02/2011
Species: Buffalo	No. of Nt determined: 633
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 633
RT-PCR primers: As1-1C530F/EUR-2B52R	Total no. of comparisons: 361
As1-1C613F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 48 days
	Sequencing time: 21 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/PAK/106/2010	PAK10106	633	633	0	100.00	0.00	ASIA	Unnamed
2	Asia1/PAK/108/2010	PAK10108	633	633	0	100.00	0.00	ASIA	Unnamed
3	Asia1/PAK/11/2011	PAK11-11	633	633	0	100.00	0.00	ASIA	Unnamed
4	Asia1/PAK/110/2010	PAK10110	633	633	0	100.00	0.00	ASIA	Unnamed
5	Asia1/PAK/111/2010	PAK10111	633	633	0	100.00	0.00	ASIA	Unnamed
6	Asia1/PAK/12/2011	PAK11-12	633	633	0	100.00	0.00	ASIA	Unnamed
7	Asia1/PAK/13/2011	PAK11-13	633	633	0	100.00	0.00	ASIA	Unnamed
8	Asia1/PAK/15/2011	PAK11-15	633	633	0	100.00	0.00	ASIA	Unnamed
9	Asia1/PAK/16/2011	PAK11-16	633	633	0	100.00	0.00	ASIA	Unnamed
10	Asia1/PAK/33/2011	PAK11-33	633	633	0	100.00	0.00	ASIA	Unnamed
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/AFG/1/2001 (DQ121109)	AFG01-01	633	576	0	91.00	9.00	ASIA	Group I
2	Asia1/IND/762/2003* (DQ101240)	IND03-AB	633	540	0	85.31	14.69	ASIA	Group III
3	Asia1/IND/63/72* (AY304994)	IND72C63	630	535	0	84.92	15.08	ASIA	Unnamed
4	Asia1/IND/18/80 (DQ121116)	IND80-18	633	536	0	84.68	15.32	ASIA	Group V
5	Asia1/YNBS/CHA/58 (AY390432)	CHA58-AA	633	533	0	84.20	15.80	ASIA	Unnamed
6	Asia1/Shamir/ISR/89	ISR89--A	633	532	0	84.04	15.96	ASIA	Unnamed
7	Asia1/HKN/19/74	HKN74-19	633	531	0	83.89	16.11	ASIA	Unnamed
8	Asia1/IND/14/95* (AF390678)	IND95-AA	633	531	0	83.89	16.11	ASIA	Unnamed
9	Asia1/IRN/10/2004 (DQ121119)	IRN04-10	633	526	0	83.10	16.90	ASIA	Group VIb
10	Asia1/PAK/1/54 (AY593795)	PAK54A01	630	515	0	81.75	18.25	ASIA	Unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: ASIA1	Report date: 07/03/2011
WRLFMD Ref No: PAK/15/2011	Reported by: N.J. Knowles
Batch No: WRLFMD/2011/00003	Checked by: D.P. King
Sender Ref: PKR24	
Location: Karachi, Sindh, Pakistan	Topotype: ASIA
Date collected: 05/01/2011	Genotype/strain: Unnamed
Date received by WRLFMD: 18/01/2011	Sequence filename: PAK11-15.SEQ
Date received for sequencing: 14/02/2011	Date sequence last updated: 15/02/2011
Species: Buffalo	No. of Nt determined: 633
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 633
RT-PCR primers: As1-1C530F/EUR-2B52R	Total no. of comparisons: 361
As1-1C613F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 48 days
	Sequencing time: 21 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/PAK/106/2010	PAK10106	633	633	0	100.00	0.00	ASIA	Unnamed
2	Asia1/PAK/108/2010	PAK10108	633	633	0	100.00	0.00	ASIA	Unnamed
3	Asia1/PAK/11/2011	PAK11-11	633	633	0	100.00	0.00	ASIA	Unnamed
4	Asia1/PAK/110/2010	PAK10110	633	633	0	100.00	0.00	ASIA	Unnamed
5	Asia1/PAK/111/2010	PAK10111	633	633	0	100.00	0.00	ASIA	Unnamed
6	Asia1/PAK/12/2011	PAK11-12	633	633	0	100.00	0.00	ASIA	Unnamed
7	Asia1/PAK/13/2011	PAK11-13	633	633	0	100.00	0.00	ASIA	Unnamed
8	Asia1/PAK/14/2011	PAK11-14	633	633	0	100.00	0.00	ASIA	Unnamed
9	Asia1/PAK/16/2011	PAK11-16	633	633	0	100.00	0.00	ASIA	Unnamed
10	Asia1/PAK/33/2011	PAK11-33	633	633	0	100.00	0.00	ASIA	Unnamed
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/AFG/1/2001 (DQ121109)	AFG01-01	633	576	0	91.00	9.00	ASIA	Group I
2	Asia1/IND/762/2003* (DQ101240)	IND03-AB	633	540	0	85.31	14.69	ASIA	Group III
3	Asia1/IND/63/72* (AY304994)	IND72C63	630	535	0	84.92	15.08	ASIA	Unnamed
4	Asia1/IND/18/80 (DQ121116)	IND80-18	633	536	0	84.68	15.32	ASIA	Group V
5	Asia1/YNBS/CHA/58 (AY390432)	CHA58-AA	633	533	0	84.20	15.80	ASIA	Unnamed
6	Asia1/Shamir/ISR/89	ISR89--A	633	532	0	84.04	15.96	ASIA	Unnamed
7	Asia1/HKN/19/74	HKN74-19	633	531	0	83.89	16.11	ASIA	Unnamed
8	Asia1/IND/14/95* (AF390678)	IND95-AA	633	531	0	83.89	16.11	ASIA	Unnamed
9	Asia1/IRN/10/2004 (DQ121119)	IRN04-10	633	526	0	83.10	16.90	ASIA	Group VIb
10	Asia1/PAK/1/54 (AY593795)	PAK54A01	630	515	0	81.75	18.25	ASIA	Unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: ASIA1	Report date: 07/03/2011
WRLFMD Ref No: PAK/16/2011	Reported by: N.J. Knowles
Batch No: WRLFMD/2011/00003	Checked by: D.P. King
Sender Ref: PKR25	
Location: Karachi, Sindh, Pakistan	Topotype: ASIA
Date collected: 05/01/2011	Genotype/strain: Unnamed
Date received by WRLFMD: 18/01/2011	Sequence filename: PAK11-16.SEQ
Date received for sequencing: 18/02/2011	Date sequence last updated: 23/02/2011
Species: Buffalo	No. of Nt determined: 633
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 633
RT-PCR primers: As1-1C530F/EUR-2B52R	Total no. of comparisons: 361
As1-1C613F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 48 days
	Sequencing time: 17 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/PAK/106/2010	PAK10106	633	633	0	100.00	0.00	ASIA	Unnamed
2	Asia1/PAK/108/2010	PAK10108	633	633	0	100.00	0.00	ASIA	Unnamed
3	Asia1/PAK/11/2011	PAK11-11	633	633	0	100.00	0.00	ASIA	Unnamed
4	Asia1/PAK/110/2010	PAK10110	633	633	0	100.00	0.00	ASIA	Unnamed
5	Asia1/PAK/111/2010	PAK10111	633	633	0	100.00	0.00	ASIA	Unnamed
6	Asia1/PAK/12/2011	PAK11-12	633	633	0	100.00	0.00	ASIA	Unnamed
7	Asia1/PAK/13/2011	PAK11-13	633	633	0	100.00	0.00	ASIA	Unnamed
8	Asia1/PAK/14/2011	PAK11-14	633	633	0	100.00	0.00	ASIA	Unnamed
9	Asia1/PAK/15/2011	PAK11-15	633	633	0	100.00	0.00	ASIA	Unnamed
10	Asia1/PAK/33/2011	PAK11-33	633	633	0	100.00	0.00	ASIA	Unnamed
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/AFG/1/2001 (DQ121109)	AFG01-01	633	576	0	91.00	9.00	ASIA	Group I
2	Asia1/IND/762/2003* (DQ101240)	IND03-AB	633	540	0	85.31	14.69	ASIA	Group III
3	Asia1/IND/63/72* (AY304994)	IND72C63	630	535	0	84.92	15.08	ASIA	Unnamed
4	Asia1/IND/18/80 (DQ121116)	IND80-18	633	536	0	84.68	15.32	ASIA	Group V
5	Asia1/YNBS/CHA/58 (AY390432)	CHA58-AA	633	533	0	84.20	15.80	ASIA	Unnamed
6	Asia1/Shamir/ISR/89	ISR89--A	633	532	0	84.04	15.96	ASIA	Unnamed
7	Asia1/HKN/19/74	HKN74-19	633	531	0	83.89	16.11	ASIA	Unnamed
8	Asia1/IND/14/95* (AF390678)	IND95-AA	633	531	0	83.89	16.11	ASIA	Unnamed
9	Asia1/IRN/10/2004 (DQ121119)	IRN04-10	633	526	0	83.10	16.90	ASIA	Group VIb
10	Asia1/PAK/1/54 (AY593795)	PAK54A01	630	515	0	81.75	18.25	ASIA	Unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: ASIA1	Report date: 07/03/2011
WRLFMD Ref No: PAK/17/2011	Reported by: N.J. Knowles
Batch No: WRLFMD/2011/00003	Checked by: D.P. King
Sender Ref: PKR26	
Location: Karachi, Sindh, Pakistan	Topotype: ASIA
Date collected: 05/01/2011	Genotype/strain: Unnamed
Date received by WRLFMD: 18/01/2011	Sequence filename: PAK11-17.SEQ
Date received for sequencing: 18/02/2011	Date sequence last updated: 23/02/2011
Species: Cattle	No. of Nt determined: 633
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 633
RT-PCR primers: As1-1C530F/EUR-2B52R	Total no. of comparisons: 361
As1-1C613F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 48 days
	Sequencing time: 17 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/PAK/106/2010	PAK10106	633	632	0	99.84	0.16	ASIA	Unnamed
2	Asia1/PAK/108/2010	PAK10108	633	632	0	99.84	0.16	ASIA	Unnamed
3	Asia1/PAK/11/2011	PAK11-11	633	632	0	99.84	0.16	ASIA	Unnamed
4	Asia1/PAK/110/2010	PAK10110	633	632	0	99.84	0.16	ASIA	Unnamed
5	Asia1/PAK/111/2010	PAK10111	633	632	0	99.84	0.16	ASIA	Unnamed
6	Asia1/PAK/12/2011	PAK11-12	633	632	0	99.84	0.16	ASIA	Unnamed
7	Asia1/PAK/13/2011	PAK11-13	633	632	0	99.84	0.16	ASIA	Unnamed
8	Asia1/PAK/14/2011	PAK11-14	633	632	0	99.84	0.16	ASIA	Unnamed
9	Asia1/PAK/15/2011	PAK11-15	633	632	0	99.84	0.16	ASIA	Unnamed
10	Asia1/PAK/16/2011	PAK11-16	633	632	0	99.84	0.16	ASIA	Unnamed
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/AFG/1/2001 (DQ121109)	AFG01-01	633	575	0	90.84	9.16	ASIA	Group I
2	Asia1/IND/762/2003* (DQ101240)	IND03-AB	633	541	0	85.47	14.53	ASIA	Group III
3	Asia1/IND/63/72* (AY304994)	IND72C63	630	536	0	85.08	14.92	ASIA	Unnamed
4	Asia1/IND/18/80 (DQ121116)	IND80-18	633	535	0	84.52	15.48	ASIA	Group V
5	Asia1/YNBS/CHA/58 (AY390432)	CHA58-AA	633	534	0	84.36	15.64	ASIA	Unnamed
6	Asia1/Shamir/ISR/89	ISR89--A	633	531	0	83.89	16.11	ASIA	Unnamed
7	Asia1/HKN/19/74	HKN74-19	633	530	0	83.73	16.27	ASIA	Unnamed
8	Asia1/IND/14/95* (AF390678)	IND95-AA	633	530	0	83.73	16.27	ASIA	Unnamed
9	Asia1/IRN/10/2004 (DQ121119)	IRN04-10	633	525	0	82.94	17.06	ASIA	Group VIb
10	Asia1/PAK/1/54 (AY593795)	PAK54A01	630	516	0	81.90	18.10	ASIA	Unnamed

nt, nucleotides

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Serotype: ASIA1	Report date: 07/03/2011
WRLFMD Ref No: PAK/32/2011	Reported by: N.J. Knowles
Batch No: WRLFMD/2011/00003	Checked by: D.P. King
Sender Ref: PKR27	
Location: Karachi, Sindh, Pakistan	Topotype: ASIA
Date collected: 08/01/2011	Genotype/strain: Unnamed
Date received by WRLFMD: 18/01/2011	Sequence filename: PAK11-32.SEQ
Date received for sequencing: 01/03/2011	Date sequence last updated: 03/03/2011
Species: Buffalo	No. of Nt determined: 633
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 633
RT-PCR primers: As1-1C530F/EUR-2B52R	Total no. of comparisons: 361
As1-1C613F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 48 days
	Sequencing time: 6 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/PAK/109/2010	PAK10109	633	633	0	100.00	0.00	ASIA	Unnamed
2	Asia1/PAK/38/2011	PAK11-38	633	633	0	100.00	0.00	ASIA	Unnamed
3	Asia1/PAK/106/2010	PAK10106	633	631	0	99.68	0.32	ASIA	Unnamed
4	Asia1/PAK/108/2010	PAK10108	633	631	0	99.68	0.32	ASIA	Unnamed
5	Asia1/PAK/11/2011	PAK11-11	633	631	0	99.68	0.32	ASIA	Unnamed
6	Asia1/PAK/110/2010	PAK10110	633	631	0	99.68	0.32	ASIA	Unnamed
7	Asia1/PAK/111/2010	PAK10111	633	631	0	99.68	0.32	ASIA	Unnamed
8	Asia1/PAK/12/2011	PAK11-12	633	631	0	99.68	0.32	ASIA	Unnamed
9	Asia1/PAK/13/2011	PAK11-13	633	631	0	99.68	0.32	ASIA	Unnamed
10	Asia1/PAK/14/2011	PAK11-14	633	631	0	99.68	0.32	ASIA	Unnamed
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/AFG/1/2001 (DQ121109)	AFG01-01	633	574	0	90.68	9.32	ASIA	Group I
2	Asia1/IND/762/2003* (DQ101240)	IND03-AB	633	538	0	84.99	15.01	ASIA	Group III
3	Asia1/IND/63/72* (AY304994)	IND72C63	630	533	0	84.60	15.40	ASIA	Unnamed
4	Asia1/IND/18/80 (DQ121116)	IND80-18	633	534	0	84.36	15.64	ASIA	Group V
5	Asia1/YNBS/CHA/58 (AY390432)	CHA58-AA	633	531	0	83.89	16.11	ASIA	Unnamed
6	Asia1/Shamir/ISR/89	ISR89--A	633	530	0	83.73	16.27	ASIA	Unnamed
7	Asia1/HKN/19/74	HKN74-19	633	529	0	83.57	16.43	ASIA	Unnamed
8	Asia1/IND/14/95* (AF390678)	IND95-AA	633	529	0	83.57	16.43	ASIA	Unnamed
9	Asia1/IRN/10/2004 (DQ121119)	IRN04-10	633	524	0	82.78	17.22	ASIA	Group VIb
10	Asia1/PAK/1/54 (AY593795)	PAK54A01	630	515	0	81.75	18.25	ASIA	Unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: ASIA1	Report date: 07/03/2011
WRLFMD Ref No: PAK/33/2011	Reported by: N.J. Knowles
Batch No: WRLFMD/2011/00003	Checked by: D.P. King
Sender Ref: PKR28	
Location: Karachi, Sindh, Pakistan	Topotype: ASIA
Date collected: 08/01/2011	Genotype/strain: Unnamed
Date received by WRLFMD: 18/01/2011	Sequence filename: PAK11-33.SEQ
Date received for sequencing: 01/03/2011	Date sequence last updated: 03/03/2011
Species: Buffalo	No. of Nt determined: 633
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 633
RT-PCR primers: As1-1C530F/EUR-2B52R	Total no. of comparisons: 361
As1-1C613F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 48 days
	Sequencing time: 6 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/PAK/106/2010	PAK10106	633	633	0	100.00	0.00	ASIA	Unnamed
2	Asia1/PAK/108/2010	PAK10108	633	633	0	100.00	0.00	ASIA	Unnamed
3	Asia1/PAK/11/2011	PAK11-11	633	633	0	100.00	0.00	ASIA	Unnamed
4	Asia1/PAK/110/2010	PAK10110	633	633	0	100.00	0.00	ASIA	Unnamed
5	Asia1/PAK/111/2010	PAK10111	633	633	0	100.00	0.00	ASIA	Unnamed
6	Asia1/PAK/12/2011	PAK11-12	633	633	0	100.00	0.00	ASIA	Unnamed
7	Asia1/PAK/13/2011	PAK11-13	633	633	0	100.00	0.00	ASIA	Unnamed
8	Asia1/PAK/14/2011	PAK11-14	633	633	0	100.00	0.00	ASIA	Unnamed
9	Asia1/PAK/15/2011	PAK11-15	633	633	0	100.00	0.00	ASIA	Unnamed
10	Asia1/PAK/16/2011	PAK11-16	633	633	0	100.00	0.00	ASIA	Unnamed
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/AFG/1/2001 (DQ121109)	AFG01-01	633	576	0	91.00	9.00	ASIA	Group I
2	Asia1/IND/762/2003* (DQ101240)	IND03-AB	633	540	0	85.31	14.69	ASIA	Group III
3	Asia1/IND/63/72* (AY304994)	IND72C63	630	535	0	84.92	15.08	ASIA	Unnamed
4	Asia1/IND/18/80 (DQ121116)	IND80-18	633	536	0	84.68	15.32	ASIA	Group V
5	Asia1/YNBS/CHA/58 (AY390432)	CHA58-AA	633	533	0	84.20	15.80	ASIA	Unnamed
6	Asia1/Shamir/ISR/89	ISR89--A	633	532	0	84.04	15.96	ASIA	Unnamed
7	Asia1/HKN/19/74	HKN74-19	633	531	0	83.89	16.11	ASIA	Unnamed
8	Asia1/IND/14/95* (AF390678)	IND95-AA	633	531	0	83.89	16.11	ASIA	Unnamed
9	Asia1/IRN/10/2004 (DQ121119)	IRN04-10	633	526	0	83.10	16.90	ASIA	Group VIb
10	Asia1/PAK/1/54 (AY593795)	PAK54A01	630	515	0	81.75	18.25	ASIA	Unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: ASIA1	Report date: 07/03/2011
WRLFMD Ref No: PAK/34/2011	Reported by: N.J. Knowles
Batch No: WRLFMD/2011/00003	Checked by: D.P. King
Sender Ref: PKR29	
Location: Karachi, Sindh, Pakistan	Topotype: ASIA
Date collected: 08/01/2011	Genotype/strain: Unnamed
Date received by WRLFMD: 18/01/2011	Sequence filename: PAK11-34.SEQ
Date received for sequencing: 01/03/2011	Date sequence last updated: 03/03/2011
Species: Buffalo	No. of Nt determined: 633
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 633
RT-PCR primers: As1-1C530F/EUR-2B52R	Total no. of comparisons: 361
As1-1C613F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 48 days
	Sequencing time: 6 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/PAK/106/2010	PAK10106	633	631	0	99.68	0.32	ASIA	Unnamed
2	Asia1/PAK/108/2010	PAK10108	633	631	0	99.68	0.32	ASIA	Unnamed
3	Asia1/PAK/11/2011	PAK11-11	633	631	0	99.68	0.32	ASIA	Unnamed
4	Asia1/PAK/110/2010	PAK10110	633	631	0	99.68	0.32	ASIA	Unnamed
5	Asia1/PAK/111/2010	PAK10111	633	631	0	99.68	0.32	ASIA	Unnamed
6	Asia1/PAK/12/2011	PAK11-12	633	631	0	99.68	0.32	ASIA	Unnamed
7	Asia1/PAK/13/2011	PAK11-13	633	631	0	99.68	0.32	ASIA	Unnamed
8	Asia1/PAK/14/2011	PAK11-14	633	631	0	99.68	0.32	ASIA	Unnamed
9	Asia1/PAK/15/2011	PAK11-15	633	631	0	99.68	0.32	ASIA	Unnamed
10	Asia1/PAK/16/2011	PAK11-16	633	631	0	99.68	0.32	ASIA	Unnamed
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/AFG/1/2001 (DQ121109)	AFG01-01	633	575	0	90.84	9.16	ASIA	Group I
2	Asia1/IND/762/2003* (DQ101240)	IND03-AB	633	539	0	85.15	14.85	ASIA	Group III
3	Asia1/IND/63/72* (AY304994)	IND72C63	630	534	0	84.76	15.24	ASIA	Unnamed
4	Asia1/IND/18/80 (DQ121116)	IND80-18	633	535	0	84.52	15.48	ASIA	Group V
5	Asia1/YNBS/CHA/58 (AY390432)	CHA58-AA	633	532	0	84.04	15.96	ASIA	Unnamed
6	Asia1/Shamir/ISR/89	ISR89--A	633	531	0	83.89	16.11	ASIA	Unnamed
7	Asia1/IND/14/95* (AF390678)	IND95-AA	633	530	0	83.73	16.27	ASIA	Unnamed
8	Asia1/HKN/19/74	HKN74-19	633	529	0	83.57	16.43	ASIA	Unnamed
9	Asia1/IRN/10/2004 (DQ121119)	IRN04-10	633	525	0	82.94	17.06	ASIA	Group VIb
10	Asia1/PAK/1/54 (AY593795)	PAK54A01	630	514	0	81.59	18.41	ASIA	Unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: ASIA1 WRLFMD Ref No: PAK/35/2011 Batch No: WRLFMD/2011/00003 Sender Ref: PKR30 Location: Karachi, Sindh, Pakistan Date collected: 08/01/2011 Date received by WRLFMD: 18/01/2011 Date received for sequencing: 01/03/2011 Species: Buffalo Material used: BTy1 Region sequenced: VP1 RT-PCR primers: As1-1C530F/EUR-2B52R As1-1C613F/EUR-2B52R	Report date: 07/03/2011 Reported by: N.J. Knowles Checked by: D.P. King Topotype: ASIA Genotype/strain: Unnamed Sequence filename: PAK11-35.SEQ Date sequence last updated: 03/03/2011 No. of Nt determined: 633 No. of ambiguities: 0 Gene length: 633 Total no. of comparisons: 361 Min. no. of nt for comparison: 600 Total turn-around time: 48 days Sequencing time: 6 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/PAK/106/2010	PAK10106	633	633	0	100.00	0.00	ASIA	Unnamed
2	Asia1/PAK/108/2010	PAK10108	633	633	0	100.00	0.00	ASIA	Unnamed
3	Asia1/PAK/11/2011	PAK11-11	633	633	0	100.00	0.00	ASIA	Unnamed
4	Asia1/PAK/110/2010	PAK10110	633	633	0	100.00	0.00	ASIA	Unnamed
5	Asia1/PAK/111/2010	PAK10111	633	633	0	100.00	0.00	ASIA	Unnamed
6	Asia1/PAK/12/2011	PAK11-12	633	633	0	100.00	0.00	ASIA	Unnamed
7	Asia1/PAK/13/2011	PAK11-13	633	633	0	100.00	0.00	ASIA	Unnamed
8	Asia1/PAK/14/2011	PAK11-14	633	633	0	100.00	0.00	ASIA	Unnamed
9	Asia1/PAK/15/2011	PAK11-15	633	633	0	100.00	0.00	ASIA	Unnamed
10	Asia1/PAK/16/2011	PAK11-16	633	633	0	100.00	0.00	ASIA	Unnamed
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/AFG/1/2001 (DQ121109)	AFG01-01	633	576	0	91.00	9.00	ASIA	Group I
2	Asia1/IND/762/2003* (DQ101240)	IND03-AB	633	540	0	85.31	14.69	ASIA	Group III
3	Asia1/IND/63/72* (AY304994)	IND72C63	630	535	0	84.92	15.08	ASIA	Unnamed
4	Asia1/IND/18/80 (DQ121116)	IND80-18	633	536	0	84.68	15.32	ASIA	Group V
5	Asia1/YNBS/CHA/58 (AY390432)	CHA58-AA	633	533	0	84.20	15.80	ASIA	Unnamed
6	Asia1/Shamir/ISR/89	ISR89--A	633	532	0	84.04	15.96	ASIA	Unnamed
7	Asia1/HKN/19/74	HKN74-19	633	531	0	83.89	16.11	ASIA	Unnamed
8	Asia1/IND/14/95* (AF390678)	IND95-AA	633	531	0	83.89	16.11	ASIA	Unnamed
9	Asia1/IRN/10/2004 (DQ121119)	IRN04-10	633	526	0	83.10	16.90	ASIA	Group VIb
10	Asia1/PAK/1/54 (AY593795)	PAK54A01	630	515	0	81.75	18.25	ASIA	Unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: ASIA1	Report date: 07/03/2011
WRLFMD Ref No: PAK/36/2011	Reported by: N.J. Knowles
Batch No: WRLFMD/2011/00003	Checked by: D.P. King
Sender Ref: PKR12	
Location: Karachi, Sindh, Pakistan	Topotype: ASIA
Date collected: 10/01/2011	Genotype/strain: Unnamed
Date received by WRLFMD: 18/01/2011	Sequence filename: PAK11-36.SEQ
Date received for sequencing: 01/03/2011	Date sequence last updated: 03/03/2011
Species: Cattle	No. of Nt determined: 633
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 633
RT-PCR primers: As1-1C530F/EUR-2B52R	Total no. of comparisons: 361
As1-1C613F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 48 days
	Sequencing time: 6 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/PAK/106/2010	PAK10106	633	633	0	100.00	0.00	ASIA	Unnamed
2	Asia1/PAK/108/2010	PAK10108	633	633	0	100.00	0.00	ASIA	Unnamed
3	Asia1/PAK/11/2011	PAK11-11	633	633	0	100.00	0.00	ASIA	Unnamed
4	Asia1/PAK/110/2010	PAK10110	633	633	0	100.00	0.00	ASIA	Unnamed
5	Asia1/PAK/111/2010	PAK10111	633	633	0	100.00	0.00	ASIA	Unnamed
6	Asia1/PAK/12/2011	PAK11-12	633	633	0	100.00	0.00	ASIA	Unnamed
7	Asia1/PAK/13/2011	PAK11-13	633	633	0	100.00	0.00	ASIA	Unnamed
8	Asia1/PAK/14/2011	PAK11-14	633	633	0	100.00	0.00	ASIA	Unnamed
9	Asia1/PAK/15/2011	PAK11-15	633	633	0	100.00	0.00	ASIA	Unnamed
10	Asia1/PAK/16/2011	PAK11-16	633	633	0	100.00	0.00	ASIA	Unnamed
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/AFG/1/2001 (DQ121109)	AFG01-01	633	576	0	91.00	9.00	ASIA	Group I
2	Asia1/IND/762/2003* (DQ101240)	IND03-AB	633	540	0	85.31	14.69	ASIA	Group III
3	Asia1/IND/63/72* (AY304994)	IND72C63	630	535	0	84.92	15.08	ASIA	Unnamed
4	Asia1/IND/18/80 (DQ121116)	IND80-18	633	536	0	84.68	15.32	ASIA	Group V
5	Asia1/YNBS/CHA/58 (AY390432)	CHA58-AA	633	533	0	84.20	15.80	ASIA	Unnamed
6	Asia1/Shamir/ISR/89	ISR89--A	633	532	0	84.04	15.96	ASIA	Unnamed
7	Asia1/HKN/19/74	HKN74-19	633	531	0	83.89	16.11	ASIA	Unnamed
8	Asia1/IND/14/95* (AF390678)	IND95-AA	633	531	0	83.89	16.11	ASIA	Unnamed
9	Asia1/IRN/10/2004 (DQ121119)	IRN04-10	633	526	0	83.10	16.90	ASIA	Group VIb
10	Asia1/PAK/1/54 (AY593795)	PAK54A01	630	515	0	81.75	18.25	ASIA	Unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: ASIA1	Report date: 07/03/2011
WRLFMD Ref No: PAK/37/2011	Reported by: N.J. Knowles
Batch No: WRLFMD/2011/00003	Checked by: D.P. King
Sender Ref: PKR13	
Location: Karachi, Sindh, Pakistan	Topotype: ASIA
Date collected: 10/01/2011	Genotype/strain: Unnamed
Date received by WRLFMD: 18/01/2011	Sequence filename: PAK11-37.SEQ
Date received for sequencing: 01/03/2011	Date sequence last updated: 03/03/2011
Species: Cattle	No. of Nt determined: 633
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 633
RT-PCR primers: As1-1C530F/EUR-2B52R	Total no. of comparisons: 361
As1-1C613F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 48 days
	Sequencing time: 6 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/PAK/106/2010	PAK10106	633	633	0	100.00	0.00	ASIA	Unnamed
2	Asia1/PAK/108/2010	PAK10108	633	633	0	100.00	0.00	ASIA	Unnamed
3	Asia1/PAK/11/2011	PAK11-11	633	633	0	100.00	0.00	ASIA	Unnamed
4	Asia1/PAK/110/2010	PAK10110	633	633	0	100.00	0.00	ASIA	Unnamed
5	Asia1/PAK/111/2010	PAK10111	633	633	0	100.00	0.00	ASIA	Unnamed
6	Asia1/PAK/12/2011	PAK11-12	633	633	0	100.00	0.00	ASIA	Unnamed
7	Asia1/PAK/13/2011	PAK11-13	633	633	0	100.00	0.00	ASIA	Unnamed
8	Asia1/PAK/14/2011	PAK11-14	633	633	0	100.00	0.00	ASIA	Unnamed
9	Asia1/PAK/15/2011	PAK11-15	633	633	0	100.00	0.00	ASIA	Unnamed
10	Asia1/PAK/16/2011	PAK11-16	633	633	0	100.00	0.00	ASIA	Unnamed
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/AFG/1/2001 (DQ121109)	AFG01-01	633	576	0	91.00	9.00	ASIA	Group I
2	Asia1/IND/762/2003* (DQ101240)	IND03-AB	633	540	0	85.31	14.69	ASIA	Group III
3	Asia1/IND/63/72* (AY304994)	IND72C63	630	535	0	84.92	15.08	ASIA	Unnamed
4	Asia1/IND/18/80 (DQ121116)	IND80-18	633	536	0	84.68	15.32	ASIA	Group V
5	Asia1/YNBS/CHA/58 (AY390432)	CHA58-AA	633	533	0	84.20	15.80	ASIA	Unnamed
6	Asia1/Shamir/ISR/89	ISR89--A	633	532	0	84.04	15.96	ASIA	Unnamed
7	Asia1/HKN/19/74	HKN74-19	633	531	0	83.89	16.11	ASIA	Unnamed
8	Asia1/IND/14/95* (AF390678)	IND95-AA	633	531	0	83.89	16.11	ASIA	Unnamed
9	Asia1/IRN/10/2004 (DQ121119)	IRN04-10	633	526	0	83.10	16.90	ASIA	Group VIb
10	Asia1/PAK/1/54 (AY593795)	PAK54A01	630	515	0	81.75	18.25	ASIA	Unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: ASIA1	Report date: 07/03/2011
WRLFMD Ref No: PAK/38/2011	Reported by: N.J. Knowles
Batch No: WRLFMD/2011/00003	Checked by: D.P. King
Sender Ref: PKR14	
Location: Karachi, Sindh, Pakistan	Topotype: ASIA
Date collected: 10/01/2011	Genotype/strain: Unnamed
Date received by WRLFMD: 18/01/2011	Sequence filename: PAK11-38.SEQ
Date received for sequencing: 01/03/2011	Date sequence last updated: 03/03/2011
Species: Cattle	No. of Nt determined: 633
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 633
RT-PCR primers: As1-1C530F/EUR-2B52R	Total no. of comparisons: 361
As1-1C613F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 48 days
	Sequencing time: 6 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/PAK/109/2010	PAK10109	633	633	0	100.00	0.00	ASIA	Unnamed
2	Asia1/PAK/32/2011	PAK11-32	633	633	0	100.00	0.00	ASIA	Unnamed
3	Asia1/PAK/106/2010	PAK10106	633	631	0	99.68	0.32	ASIA	Unnamed
4	Asia1/PAK/108/2010	PAK10108	633	631	0	99.68	0.32	ASIA	Unnamed
5	Asia1/PAK/11/2011	PAK11-11	633	631	0	99.68	0.32	ASIA	Unnamed
6	Asia1/PAK/110/2010	PAK10110	633	631	0	99.68	0.32	ASIA	Unnamed
7	Asia1/PAK/111/2010	PAK10111	633	631	0	99.68	0.32	ASIA	Unnamed
8	Asia1/PAK/12/2011	PAK11-12	633	631	0	99.68	0.32	ASIA	Unnamed
9	Asia1/PAK/13/2011	PAK11-13	633	631	0	99.68	0.32	ASIA	Unnamed
10	Asia1/PAK/14/2011	PAK11-14	633	631	0	99.68	0.32	ASIA	Unnamed
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/AFG/1/2001 (DQ121109)	AFG01-01	633	574	0	90.68	9.32	ASIA	Group I
2	Asia1/IND/762/2003* (DQ101240)	IND03-AB	633	538	0	84.99	15.01	ASIA	Group III
3	Asia1/IND/63/72* (AY304994)	IND72C63	630	533	0	84.60	15.40	ASIA	Unnamed
4	Asia1/IND/18/80 (DQ121116)	IND80-18	633	534	0	84.36	15.64	ASIA	Group V
5	Asia1/YNBS/CHA/58 (AY390432)	CHA58-AA	633	531	0	83.89	16.11	ASIA	Unnamed
6	Asia1/Shamir/ISR/89	ISR89--A	633	530	0	83.73	16.27	ASIA	Unnamed
7	Asia1/HKN/19/74	HKN74-19	633	529	0	83.57	16.43	ASIA	Unnamed
8	Asia1/IND/14/95* (AF390678)	IND95-AA	633	529	0	83.57	16.43	ASIA	Unnamed
9	Asia1/IRN/10/2004 (DQ121119)	IRN04-10	633	524	0	82.78	17.22	ASIA	Group VIb
10	Asia1/PAK/1/54 (AY593795)	PAK54A01	630	515	0	81.75	18.25	ASIA	Unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: ASIA1	Report date: 07/03/2011
WRLFMD Ref No: PAK/39/2011	Reported by: N.J. Knowles
Batch No: WRLFMD/2011/00003	Checked by: D.P. King
Sender Ref: PKR15	
Location: Karachi, Sindh, Pakistan	Topotype: ASIA
Date collected: 10/01/2011	Genotype/strain: Unnamed
Date received by WRLFMD: 18/01/2011	Sequence filename: PAK11-39.SEQ
Date received for sequencing: 01/03/2011	Date sequence last updated: 03/03/2011
Species: Cattle	No. of Nt determined: 633
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 633
RT-PCR primers: As1-1C530F/EUR-2B52R	Total no. of comparisons: 361
As1-1C613F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 48 days
	Sequencing time: 6 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/PAK/106/2010	PAK10106	633	633	0	100.00	0.00	ASIA	Unnamed
2	Asia1/PAK/108/2010	PAK10108	633	633	0	100.00	0.00	ASIA	Unnamed
3	Asia1/PAK/11/2011	PAK11-11	633	633	0	100.00	0.00	ASIA	Unnamed
4	Asia1/PAK/110/2010	PAK10110	633	633	0	100.00	0.00	ASIA	Unnamed
5	Asia1/PAK/111/2010	PAK10111	633	633	0	100.00	0.00	ASIA	Unnamed
6	Asia1/PAK/12/2011	PAK11-12	633	633	0	100.00	0.00	ASIA	Unnamed
7	Asia1/PAK/13/2011	PAK11-13	633	633	0	100.00	0.00	ASIA	Unnamed
8	Asia1/PAK/14/2011	PAK11-14	633	633	0	100.00	0.00	ASIA	Unnamed
9	Asia1/PAK/15/2011	PAK11-15	633	633	0	100.00	0.00	ASIA	Unnamed
10	Asia1/PAK/16/2011	PAK11-16	633	633	0	100.00	0.00	ASIA	Unnamed
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/AFG/1/2001 (DQ121109)	AFG01-01	633	576	0	91.00	9.00	ASIA	Group I
2	Asia1/IND/762/2003* (DQ101240)	IND03-AB	633	540	0	85.31	14.69	ASIA	Group III
3	Asia1/IND/63/72* (AY304994)	IND72C63	630	535	0	84.92	15.08	ASIA	Unnamed
4	Asia1/IND/18/80 (DQ121116)	IND80-18	633	536	0	84.68	15.32	ASIA	Group V
5	Asia1/YNBS/CHA/58 (AY390432)	CHA58-AA	633	533	0	84.20	15.80	ASIA	Unnamed
6	Asia1/Shamir/ISR/89	ISR89--A	633	532	0	84.04	15.96	ASIA	Unnamed
7	Asia1/HKN/19/74	HKN74-19	633	531	0	83.89	16.11	ASIA	Unnamed
8	Asia1/IND/14/95* (AF390678)	IND95-AA	633	531	0	83.89	16.11	ASIA	Unnamed
9	Asia1/IRN/10/2004 (DQ121119)	IRN04-10	633	526	0	83.10	16.90	ASIA	Group VIb
10	Asia1/PAK/1/54 (AY593795)	PAK54A01	630	515	0	81.75	18.25	ASIA	Unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: ASIA1	Report date: 07/03/2011
WRLFMD Ref No: PAK/47/2011	Reported by: N.J. Knowles
Batch No: WRLFMD/2011/00003	Checked by: D.P. King
Sender Ref: PKR16	
Location: Karachi, Sindh, Pakistan	Topotype: ASIA
Date collected: 12/01/2011	Genotype/strain: Unnamed
Date received by WRLFMD: 18/01/2011	Sequence filename: PAK11-47.SEQ
Date received for sequencing: 01/03/2011	Date sequence last updated: 03/03/2011
Species: Cattle	No. of Nt determined: 633
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 633
RT-PCR primers: As1-1C530F/EUR-2B52R	Total no. of comparisons: 361
As1-1C613F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 48 days
	Sequencing time: 6 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/PAK/6/2011	PAK11-06	633	633	0	100.00	0.00	ASIA	Unnamed
2	Asia1/PAK/106/2010	PAK10106	633	631	0	99.68	0.32	ASIA	Unnamed
3	Asia1/PAK/108/2010	PAK10108	633	631	0	99.68	0.32	ASIA	Unnamed
4	Asia1/PAK/11/2011	PAK11-11	633	631	0	99.68	0.32	ASIA	Unnamed
5	Asia1/PAK/110/2010	PAK10110	633	631	0	99.68	0.32	ASIA	Unnamed
6	Asia1/PAK/111/2010	PAK10111	633	631	0	99.68	0.32	ASIA	Unnamed
7	Asia1/PAK/12/2011	PAK11-12	633	631	0	99.68	0.32	ASIA	Unnamed
8	Asia1/PAK/13/2011	PAK11-13	633	631	0	99.68	0.32	ASIA	Unnamed
9	Asia1/PAK/14/2011	PAK11-14	633	631	0	99.68	0.32	ASIA	Unnamed
10	Asia1/PAK/15/2011	PAK11-15	633	631	0	99.68	0.32	ASIA	Unnamed
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/AFG/1/2001 (DQ121109)	AFG01-01	633	574	0	90.68	9.32	ASIA	Group I
2	Asia1/IND/762/2003* (DQ101240)	IND03-AB	633	538	0	84.99	15.01	ASIA	Group III
3	Asia1/IND/63/72* (AY304994)	IND72C63	630	533	0	84.60	15.40	ASIA	Unnamed
4	Asia1/IND/18/80 (DQ121116)	IND80-18	633	534	0	84.36	15.64	ASIA	Group V
5	Asia1/YNBS/CHA/58 (AY390432)	CHA58-AA	633	531	0	83.89	16.11	ASIA	Unnamed
6	Asia1/Shamir/ISR/89	ISR89--A	633	530	0	83.73	16.27	ASIA	Unnamed
7	Asia1/HKN/19/74	HKN74-19	633	529	0	83.57	16.43	ASIA	Unnamed
8	Asia1/IND/14/95* (AF390678)	IND95-AA	633	529	0	83.57	16.43	ASIA	Unnamed
9	Asia1/IRN/10/2004 (DQ121119)	IRN04-10	633	524	0	82.78	17.22	ASIA	Group VIb
10	Asia1/PAK/1/54 (AY593795)	PAK54A01	630	514	0	81.59	18.41	ASIA	Unnamed

nt, nucleotides

*, not a WRLFMD reference number

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Serotype: ASIA1	Report date: 07/03/2011
WRLFMD Ref No: PAK/49/2011	Reported by: N.J. Knowles
Batch No: WRLFMD/2011/00003	Checked by: D.P. King
Sender Ref: PKR32	
Location: Karachi, Sindh, Pakistan	Topotype: ASIA
Date collected: 13/01/2011	Genotype/strain: Unnamed
Date received by WRLFMD: 18/01/2011	Sequence filename: PAK11-49.SEQ
Date received for sequencing: 01/03/2011	Date sequence last updated: 03/03/2011
Species: Buffalo	No. of Nt determined: 633
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 633
RT-PCR primers: As1-1C530F/EUR-2B52R	Total no. of comparisons: 361
As1-1C613F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 48 days
	Sequencing time: 6 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/PAK/106/2010	PAK10106	633	633	0	100.00	0.00	ASIA	Unnamed
2	Asia1/PAK/108/2010	PAK10108	633	633	0	100.00	0.00	ASIA	Unnamed
3	Asia1/PAK/11/2011	PAK11-11	633	633	0	100.00	0.00	ASIA	Unnamed
4	Asia1/PAK/110/2010	PAK10110	633	633	0	100.00	0.00	ASIA	Unnamed
5	Asia1/PAK/111/2010	PAK10111	633	633	0	100.00	0.00	ASIA	Unnamed
6	Asia1/PAK/12/2011	PAK11-12	633	633	0	100.00	0.00	ASIA	Unnamed
7	Asia1/PAK/13/2011	PAK11-13	633	633	0	100.00	0.00	ASIA	Unnamed
8	Asia1/PAK/14/2011	PAK11-14	633	633	0	100.00	0.00	ASIA	Unnamed
9	Asia1/PAK/15/2011	PAK11-15	633	633	0	100.00	0.00	ASIA	Unnamed
10	Asia1/PAK/16/2011	PAK11-16	633	633	0	100.00	0.00	ASIA	Unnamed
Most Closely Related Reference Viruses									
(see http://www.wrlfmd.org/fmd_genotyping/prototypes.htm)									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/AFG/1/2001 (DQ121109)	AFG01-01	633	576	0	91.00	9.00	ASIA	Group I
2	Asia1/IND/762/2003* (DQ101240)	IND03-AB	633	540	0	85.31	14.69	ASIA	Group III
3	Asia1/IND/63/72* (AY304994)	IND72C63	630	535	0	84.92	15.08	ASIA	Unnamed
4	Asia1/IND/18/80 (DQ121116)	IND80-18	633	536	0	84.68	15.32	ASIA	Group V
5	Asia1/YNBS/CHA/58 (AY390432)	CHA58-AA	633	533	0	84.20	15.80	ASIA	Unnamed
6	Asia1/Shamir/ISR/89	ISR89--A	633	532	0	84.04	15.96	ASIA	Unnamed
7	Asia1/HKN/19/74	HKN74-19	633	531	0	83.89	16.11	ASIA	Unnamed
8	Asia1/IND/14/95* (AF390678)	IND95-AA	633	531	0	83.89	16.11	ASIA	Unnamed
9	Asia1/IRN/10/2004 (DQ121119)	IRN04-10	633	526	0	83.10	16.90	ASIA	Group VIb
10	Asia1/PAK/1/54 (AY593795)	PAK54A01	630	515	0	81.75	18.25	ASIA	Unnamed

nt, nucleotides

*, not a WRLFMD reference number

Assembled with Report Generator v4.0

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FAO World Reference Laboratory for FMD Genotyping Report

IAH-P-EP-MEG-FOR-005-3

Page 1 of 1

Serotype: ASIA1	Report date: 07/03/2011
WRLFMD Ref No: PAK/50/2011	Reported by: N.J. Knowles
Batch No: WRLFMD/2011/00003	Checked by: D.P. King
Sender Ref: PKR33	
Location: Karachi, Sindh, Pakistan	Topotype: ASIA
Date collected: 13/01/2011	Genotype/strain: Unnamed
Date received by WRLFMD: 18/01/2011	Sequence filename: PAK11-50.SEQ
Date received for sequencing: 01/03/2011	Date sequence last updated: 03/03/2011
Species: Buffalo	No. of Nt determined: 633
Material used: BTy1	No. of ambiguities: 0
Region sequenced: VP1	Gene length: 633
RT-PCR primers: As1-1C530F/EUR-2B52R	Total no. of comparisons: 361
As1-1C613F/EUR-2B52R	Min. no. of nt for comparison: 600
	Total turn-around time: 48 days
	Sequencing time: 6 days
Comments:	

Most Closely Related Viruses									
Pos.	Virus name	Filename	No. nt comp.	No. nt match.	No. of ambig.	% Id.	% Diff.	Topotype	Strain
1	Asia1/PAK/106/2010	PAK10106	633	633	0	100.00	0.00	ASIA	Unnamed
2	Asia1/PAK/108/2010	PAK10108	633	633	0	100.00	0.00	ASIA	Unnamed
3	Asia1/PAK/11/2011	PAK11-11	633	633	0	100.00	0.00	ASIA	Unnamed
4	Asia1/PAK/110/2010	PAK10110	633	633	0	100.00	0.00	ASIA	Unnamed
5	Asia1/PAK/111/2010	PAK10111	633	633	0	100.00	0.00	ASIA	Unnamed
6	Asia1/PAK/12/2011	PAK11-12	633	633	0	100.00	0.00	ASIA	Unnamed
7	Asia1/PAK/13/2011	PAK11-13	633	633	0	100.00	0.00	ASIA	Unnamed
8	Asia1/PAK/14/2011	PAK11-14	633	633	0	100.00	0.00	ASIA	Unnamed
9	Asia1/PAK/15/2011	PAK11-15	633	633	0	100.00	0.00	ASIA	Unnamed
10	Asia1/PAK/16/2011	PAK11-16	633	633	0	100.00	0.00	ASIA	Unnamed
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3	Asia1/IND/63/72* (AY304994)	IND72C63	630	535	0	84.92	15.08	ASIA	Unnamed
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nt, nucleotides

*, not a WRLFMD reference number

Assembled with Report Generator v4.0

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Report on FMDV Asia 1 in Pakistan in 2010-2011

Batch: WRLFMD/2011/00003

◆ indicates viruses in this batch

Software: MEGA 5.0

Analysis

Analysis ----- Phylogeny Reconstruction

Scope ----- All Selected Taxa

Statistical Method ----- Neighbor-joining

Phylogeny Test

Test of Phylogeny ----- Bootstrap method

No. of Bootstrap Replications ----- 1000

Substitution Model

Substitutions Type ----- Nucleotide

Model/Method ----- Kimura 2-parameter model

Substitutions to Include ----- d: Transitions + Transversions

Rates and Patterns

Rates among Sites ----- Uniform rates

Pattern among Lineages ----- Same (Homogeneous)

Data Subset to Use

Gaps/Missing Data Treatment ----- Pairwise deletion

Codons Included ----- 1st+2nd+3rd+Non-Coding

No. of Sites : 638

No Of Bootstrap Reps = 1000

Only bootstrap values of 70% and above are shown

*, not a WRLFMD Ref. No.

N.J. Knowles & J. Wadsworth, 07 March 2011

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