

Supporting Online Material for

Genetic characterization and clinical characteristics of bovine viral diarrhoea viruses in cattle herds of Heilongjiang province, China

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This PDF file includes:
Supplementary Table (ST1)

Supplementary Table

ST1: Information on BVDV isolates and reference strains from GenBank in this study

No.	Cattle farm	Districts	Breeds	Origins	Isolate	Clinical sample	Clinical sign	Sub genotype	Age	Collection year	5'-UTR GenBank accession
BVDV-1 isolates from this study											
1	HJ	Heihe	Dairy cow	HLJ	HJ-1	Liver	GD	1b	13 m	2010	JX065783
2	HJ	Heihe	Dairy cow	HLJ	HJ-2	Liver	GD	1b	13 m	2010	JX065784
3	DZ	Suihua	Beef cattle	Liaoning	DZ-1	Intestine	GD	1b	10 m	2016	KY865360
4	DZ	Suihua	Beef cattle	Liaoning	DZ-2	Intestine	GD	1b	10 m	2016	KY865359
5	WD	Harbin	Dairy cow	Australia	WD-1	Blood	GD	1b	8 m	2016	KY865361
6	WD	Harbin	Dairy cow	Australia	WD-2	Blood	GD	1b	8 m	2016	KY865362
7	WD	Harbin	Dairy cow	Australia	WD-3	Blood	GD	1b	7 m	2016	KY865363
8	XH	Daqing	Dairy cow	HLJ	DQ1	Liver	GD	1b	8 m	2017	MT179828
9	XH	Daqing	Dairy cow	HLJ	DQ2	Liver	GD	1b	8 m	2017	MT179829
10	XH	Daqing	Dairy cow	HLJ	DQ3	Liver	GD	1b	8 m	2017	MT179830
11	XH	Daqing	Dairy cow	HLJ	DQ4	Liver	GD	1b	8 m	2017	MT179831
12	XH	Daqing	Dairy cow	HLJ	XH-1	Feces	GD	1o	8 m	2016	KY865374
13	XH	Daqing	Dairy cow	HLJ	XH-2	Feces	GD	1o	8 m	2016	KY865375
14	XH	Daqing	Dairy cow	HLJ	XH-3	Feces	GD	1o	6 m	2016	KY865378
15	XH	Daqing	Dairy cow	HLJ	XH-4	Feces	GD	1o	6 m	2016	KY865376
16	XH	Daqing	Dairy cow	HLJ	XH-5	Serum	SD	1o	6 m	2016	KY865377
17	XH	Daqing	Dairy cow	HLJ	XH-6	Serum	SD	1o	7 m	2016	KY865379
18	MF	Mudanjiang	Dairy cow	HLJ, Australia	MF-1	Serum	SD	1c	5 m	2016	KY865369
19	MF	Mudanjiang	Dairy cow	HLJ, Australia	MF-2	Serum	SD	1c	3 m	2016	KY865370
20	MF	Mudanjiang	Dairy cow	HLJ, Australia	MF-3	Serum	SD	1o	7 m	2016	KY865371
21	MF	Mudanjiang	Dairy cow	HLJ, Australia	MF-4	Serum	SD	1b	4 m	2016	KY865372
22	MF	Mudanjiang	Dairy cow	HLJ, Australia	MF-5	Serum	SD	1c	4 m	2016	KY865373
23	HY	Mudanjiang	Dairy cow	Uruguay	HY-1	Serum	SD	1c	18 m	2016	KY865364
24	HY	Mudanjiang	Dairy cow	Uruguay	HY-2	Serum	SD	1c	18 m	2016	KY865365
25	HY	Mudanjiang	Dairy cow	Uruguay	HY-3	Serum	SD	1o	18 m	2016	KY865366
26	HY	Mudanjiang	Dairy cow	Uruguay	HY-4	Serum	SD	1m	18 m	2016	KY865367
27	HY	Mudanjiang	Dairy cow	Uruguay	HY-5	Serum	SD	1m	18 m	2016	KY865368
28	FH	Qiqihar	Dairy cow	Australia	FH-1	Serum	SD	1c	3 m	2016	KY865356
29	FH	Qiqihar	Dairy cow	Australia	FH-2	Serum	SD	1c	4 m	2016	KY865357
30	FH	Qiqihar	Dairy cow	Australia	FH-3	Serum	SD	1c	3 m	2016	KY865358
31	DZ	Suihua	Beef cattle	HLJ	ZD1	Serum	SD	1b	10 m	2017	MT179841
32	DZ	Suihua	Beef cattle	HLJ	ZD2	Serum	SD	1b	10 m	2017	MT179842
33	DZ	Suihua	Beef cattle	HLJ	ZD3	Serum	SD	1b	10 m	2017	MT179843

34	DZ	Suihua	Beef cattle	HLJ	ZD4	Serum	SD	1b	10 m	2017	MT179844
35	DZ	Suihua	Beef cattle	HLJ	ZD5	Serum	SD	1d	10 m	2017	MT179845
36	QG	Mudanjiang	Dairy cow	Australia	QG	Serum	SD	1b	50 m	2018	MT179838
37	HY	Mudanjiang	Dairy cow	Uruguay	HY	Serum	SD	1d	18 m	2017	MT179834
38	YL	Harbin	Dairy cow	HLJ	YL-1	Nose swab	RD	1o	30 m	2016	KY865380
39	LD	Daqing	Dairy cow	HLJ	LD	Lungs	RD	1d	2 m	2017	MT179836
40	SET	Daqing	Beef cattle	Jilig	SET	Lungs	RD	1d	2 m	2017	MT179840
41	HLR	Heihe	Beef cattle	IM	HLR1	Lungs	RD	1d	7 m	2016	MT179832
42	HLR	Heihe	Beef cattle	IM	HLR2	Lungs	RD	1b	7 m	2017	MT179833
43	SW	Heihe	Dairy cow	Australia	AQ1	Lungs	RD	1d	3 m	2017	MT179823
44	SW	Heihe	Dairy cow	Australia	AQ2	Lungs	RD	1d	2 m	2017	MT179824
45	SW	Heihe	Dairy cow	Australia	AQ3	Lungs	RD	1d	2 m	2016	MT179825
46	CJSH	Qiqihar	Dairy cow	Australia	CJSH	Lungs	RD	1b	2 m	2018	MT179827
47	QW	Qiqihar	Dairy cow	Australia	QQHE	Lungs	RD	1b	3 m	2018	MT179839
48	BA	Heihe	Dairy cow	New Zealand	BA	Lungs	RD	1d	6 m	2018	MT179826
49	MS	Jixi	Beef cattle	HLJ	MS	Lungs	RD	1b	7 m	2018	MT179837
50	ZY	Daqing	Dairy cow	HLJ	ZY	Lungs	RD	1b	10 m	2017	MT179846
51	SP	Jixi	Beef cattle	Jilig	AD1	Lungs	RD	1b	5 m	2018	MT179821
52	SP	Jixi	Beef cattle	Jilig	AD2	Lungs	RD	1b	5 m	2018	MT179822
53	TN	Harbin	Beef cattle	Jilig	JL-TN	Lungs	RD	1b	7 m	2018	MT179835

BVDV reference strains retrieved from GenBank

1		Cattle	USA	NADL		1a		1963		NC001461
2		Cattle	Hungary	VEDEVAC		1b		2003		AJ585412
3		Cattle	Poland	187-AN		1b		2017		MK381363
4		Bos taurus	UK	MRI0842		1b		2017		LT901267
5		Calf	South Korea	43923		1b		2009		GQ985459
6		Cattle	USA	MS15.1		1b		2009		GU395536
7		Cattle	China	shihezi148		1c		2006		EU159700
8		Cow	Australia	Bega		1c		1998		AF049221
9		Cattle	Australia	AQMZ02AI21-2		1c		2002		AB300687
10		Cattle	Austria	F		1d		1998		AF298065
11		Cattle	Germany	Lamspringe-735		1d		2000		AJ304391
12		Cattle	Germany	16484/93		1d		2000		AJ304383
13		Cattle	Slovakia	3186V6		1e		2000		AF298062
14		Cattle	Austria	J		1f		1998		AF298067
15		Cattle	Australia	AQMZ02AI21-2		1g		1998		AF298064
16		Cattle	Italy	S9609A		1h		1996		Z79764
17		Cattle	UK	23-15		1i		1997		F298059
18		Cattle	Switzerland	Rebe		1k		2000		AH010041
19		Pig	China	ZM-95		1m		1995		AF526381
20		Bos taurus	China	SD-15		1m		2015		KR866116
21		Yak	China	XZ-92		1m		2010		KJ578915
22		Cattle	Japan	Shitara0206		1n		2006		AB359930
23		Pig	China	JS10116		1o		2010		JN248734
24		Cattle	Japan	IS25CP/01		1o		2001		AB359931
25		Cattle	China	BJ0702		1p		2007		GU120248
26		Cattle	China	11N36		1q		2011		JX437156
27		Cattle	Italy	UM/136/08		1s				LM994673
28		Cattle	Italy	SI/207/12		1t		2014		LM994674
29		Yak	China	M31182		1u		2010		JQ799141
30		Dairy cattle	China	GXBH-EB34		1u		2011		KJ578831
31		Cattle	USA	890		2		1994		U18059
32		Cattle	Japan	KZ-91-CP		2		1997		AB003619
33		Cow	Australia	Australia-3		3		2010		HQ403056
34		Bos taurus	Italy	Italy-280/11-A		3		2011		JN703311

HLJ: Heilongjiang province, IM: Inner Mongolia, SD: Without clinical symptoms including subclinical, persistent, and acute infection, GD: Manifesting gastrointestinal symptoms including diarrhea or mucosal disease, and RD: Manifesting respiratory disease