

C E 70

A/swine/Penn/A01076777/2010	QKLPGSDNST	ATLCLGHHAV	PNGTLVKTTT	DDQIEVTNAT	ELVQSSSTGR	ICNSPHQILD	GKNCTLDLAL
A/swine/Gent/1/1984	.D..ENG...	.K.....	.....	N.....	F.M.K	..N..RV..	.A.....
A/swine/England/163266/1987	.GFSRN.DNI	.....	.....	N.....	.....	..N..R..	.MD...V..
A/swine/Gent/172/2008	.D..KG.N.	.....	.....	N.....	NF.M.K	..KN..R..	.A.....S.
A/swine/Texas/4199-2/1998	N....	.....	.....	N.....	.....	..D..R..	.....
A/swine/Minnesota/593/1999	N....	.....	.....	N.....	.....	..D..R..	.....
A/swine/Ontario/33853/2005	M....	.....	.....	.....	.....	.....	.....
A/Indiana/08/2011	M....	.....	.....	.....	.....G	.....	.....
A/swine/Iowa/A01049750/2011	N...M	.....	.....	.....V....	.....	.....	.....
A/Victoria/3/1975	.D..N...S.	.....	.....	N.....	K	..N..R..	.I.....
A/England/427/1988	N....	.....	.....	N.....	.....	..D..R..	.....
A/Nanchang/933/1995	N....	.....	.....	N.....	.....	..D..R..	.....
A/Wisconsin/67/2005	N....	I...	N.....	G	.....	..D.....	.E.....
A/Perth/16/2009	N....	I...	N.....	.....	.....E	..D.....	.....
A/Victoria/361/2011	N....	I...	N.....	N..I.E	.....	..D.....	.E.....

E E E A A A140

A/swine/Penn/A01076777/2010	LGDPHCDDFO	NKEWDLFVER	STAYSNCPYP	YVPDYVSLRS	LVASSGTLEF	TOENFNWTVG	AODGSSYACR
A/swine/Gent/1/1984	G..	.EK.....	.K.F.....	D...A....	.I.....	IN.G.....	T.N.G.N..K
A/swine/England/163266/1987	G..	.ET.....	.K.F.....	D...A....	.....	IN.G...V..	T.N.G.S..K
A/swine/Gent/172/2008	G..	.EK...I...	.K.F.....	D..E.T....	.I.....	.N.D.....	T.N.G.S..K
A/swine/Texas/4199-2/1998	G..	I...	.K.....	D...S....	.....	.N.D.....	...G.S..K
A/swine/Minnesota/593/1999	G..	I...	.K.....	D...S....	.....	.N.D.....	...G.S..K
A/swine/Ontario/33853/2005	G..	.....	.....	D...A....	.....	..S.....	.....
A/Indiana/08/2011	G..	.....	.....	D...A....	.....	..S.....	.....
A/swine/Iowa/A01049750/2011	E..	.T.....	.....	D...S....	.....	..S.D.....	.....
A/Victoria/3/1975	G..	.EK.....	.K.F.....	D...A....	.....	IN.G.....	T.N.G.N..K
A/England/427/1988	G..	.....	.K.....	D...A....	.....	IN.D.....	.S.G...K
A/Nanchang/933/1995	G..	.....	.K.....	D...A....	.....	.N.G.....	...T...K
A/Wisconsin/67/2005	Q..G.	.K.....	.K.....	D...A....	.....	ND.S.....	T.N.T.SS.K
A/Perth/16/2009	Q..G.	.K.....	.K.....	D...A....	.....	NN.S.....	T.N.T.S..I
A/Victoria/361/2011	Q..G.	.K.....	.K.....	D...A....	.....	NN.S.....	T.N.T.S..I

A B B B D D D 210

A/swine/Penn/A01076777/2010	RKSVNSFFSR	LNWL	YNLNYK	YPALNVTMPN	NDNFDKLYIW	GVHHPGTDKD	QTNLYIQASG	RVTVSTKRSQ
A/swine/Gent/1/1984	.GPNS....	.....	.KSGNT	.M.....	S.....	..S..RE	..V....	K...F...H
A/swine/England/163266/1987	.G.DS....	.....	.KSGNT	.V.....	.....	.I...S..OE	..R..ALE.	.....
A/swine/Gent/172/2008	.GPN....	.....	.KSGNT	.M.....	S.D.....	..S..RE	.....	KI.....
A/swine/Texas/4199-2/1998	.G.K.....	.....	.HK.E..	.....	..K.....	..S..SE	..S..V..I.	.....
A/swine/Minnesota/593/1999	.E.K.....	.....	.HK.E..	.....	..K.....	..S..SE	..S..V..I.	.....
A/swine/Ontario/33853/2005	.E.....	.....	.H..D..	.....	..K.....	..R.....	..V....	.....
A/Indiana/08/2011	.G.....	.....	.....	.EQ.....	..K.....	.....	..V....	..I.....
A/swine/Iowa/A01049750/2011	.G.....	.....	.H.....	.....	.....	..R.....	.A...V....	.....
A/Victoria/3/1975	.GPDIG....	.....	.KSGST	.VQ.....	..S.....	..S..E	..D..V....	K.....
A/England/427/1988	.G.....	.....	.HKSE	.....	.GK.....	..S..RE	.....	..VR....
A/Nanchang/933/1995	.G.K.....	.....	.HK.E..	.....	..K.....	..S..S	..S..V....	.....
A/Wisconsin/67/2005	.R.N.....	.....	.TH.KF.	.....	.EK.....	..V..N	..I...A....	..I.....
A/Perth/16/2009	.R.K.....	.....	.TH..F.	.....	.EQ.....	..L.....	..I...A....	.....
A/Victoria/361/2011	.R.N.....	.....	.TH..F.	.....	.EQ.....	.....	..I...A.S.	..I.....

D D C 280

A/swine/Penn/A01076777/2010	QTVIPNIGSR	PWVRGVSSII	SIYWTIVKPG	DILLINSTGN	LIAPRGYFKI	QSGKSSIMRS	DAPIONCKSE
A/swine/Gent/1/1984	..I...V..G	L..R.	.....	.....V..N.	.....	M HN.R.....	T.S.
A/swine/England/163266/1987	..I...V..P	L..R.	.....	.....N.	M	RA...I..	ST.I.
A/swine/Gent/172/2008	..I...L..R.	.....	.....	.....I..N.	.....	.T...V..	T.N.
A/swine/Texas/4199-2/1998	I..R.	.....	.....S...	.....	.....RN	.....	.....D..Y.
A/swine/Minnesota/593/1999	I..R.	.....	.....S...	.....	.....RN	.....	.....D..Y.
A/swine/Ontario/33853/2005	.....	.....	.....	.....	.....	.....	.....N.
A/Indiana/08/2011	.....	.....	.....	.....	.....	.....	.....H.DE.N.
A/swine/Iowa/A01049750/2011	.....	.....V.	.....	.....	.....	RN	H.D.N.
A/Victoria/3/1975	..I...V....	L..R.	.....	.....V..N.	M	RT.....	T.S.
A/England/427/1988	L..R.	.....	.....	.....	.....	RT.....	T.S.
A/Nanchang/933/1995	I..R.	.....	.....K...	.....	.....R	.....	.....N.
A/Wisconsin/67/2005	RI.NIP.R	.....	.....	.....	.....R	.....	.....K.N.
A/Perth/16/2009	...S.....	..R.NIP.R	.....	.....	.....R	.....	.....K.N.
A/Victoria/361/2011	.A.....	..RI.NIP.R	.....	.....	.....R	.....	.....K.N.

329

A/swine/Penn/A01076777/2010	CITPNGSIPN	DKPFQNVNRI	TYGVCPRYVK	QNTLKLATGM	RNVPEKQTR
A/swine/Gent/1/1984	K.	..A.K.	.....	.....I.....	.....
A/swine/England/163266/1987	V..	K.	..A.K.IR	I.....	.....
A/swine/Gent/172/2008	.....	.....	..A.H.I	I..R.	.....
A/swine/Texas/4199-2/1998	.....	.....	..A.K.	..K.....	.....
A/swine/Minnesota/593/1999	.....	.....	..A.K.	..K.....	.....
A/swine/Ontario/33853/2005	.....	.....	..A.....	.....	.....
A/Indiana/08/2011	K.	..A.....	.....	.....	.....
A/swine/Iowa/A01049750/2011	.....	..A.....	.....	.....	.....
A/Victoria/3/1975	K.	..A.K.	.....	.....	.....
A/England/427/1988	.....	..A.....	.....	.....	.....
A/Nanchang/933/1995	.....	..A.....	.....	.....	.....
A/Wisconsin/67/2005	.....	..A.....	.....	.....	.....
A/Perth/16/2009	.....	..A.....	.....	.....	.....
A/Victoria/361/2011	.....	..A.....	..S.....	.....	.....