

Supplementary Figure

Supplementary Figure. (A). Alignment of BUNV and OROV NSs proteins. The red box highlights the residues deleted in OROV C-terminal NSs mutant (rOROV246NSs). The yellow highlight shows the 'LPS' motif that is conserved in orthobunyavirus NSs proteins as described in (57) (B). Alignment of all Simbu serogroup virus NSs proteins. Amino acid residues LPC (highlighted in yellow) are conserved amongst all the Clade A Simbu viruses.

A

20 40 60 80 100
 BUNV **MMSLLTPAVL LTQRSHLTL** SVSTPLGLVM TTY**ESSTL**KD **ARLKLVSQKE** VNGKLHLTLG **AGRLLYIIRI** FLATGTT**QFL** **TMVLPSTASV** **DSLPGTYLRR** C* 102
 OROV -**MYHNLHLH LIRRHMMWHL** KLD**TDKCSML** VL**LESSSSTK** **RRPKMSYVRH** RGPWLTLLLV **GSNLQWLITI** SHSS**RIQCR** **TTVLPCTVCQ** DT*----- -- 92

B

		20	40	60	80	92							
Clade A	Oropouche (KP052852)	M- Y- HNGHLH	HL IRRQHMMH	LKLD TDKCSM	LVL LESSSST	KRRPKMSYVR	HRGPWLTLLL	VGSNLQWLIT	ISHSS RIQC	RTTVLPCTVC	----QDT*	92	
	Iquitos (KF697144)	..	..	..	..	..	..	..	..N	..	----R	92	
	Madre de Dios (KF697146)	M-	..	..	..A	..	..K	R	..	..C	..	----L	93
	Jatobal (JQ675601)	M -	K	..	..N	..	..R	..	..N	..E	..L	....Q	93
	Facey's Paddock (KF697136)	..	..R	R	..	..R	..	..R	..	..E	..S	....F	96
	Buttonwillow (KF697162)	M -	L	P	R	T	..	..S	..EQA	A	..S	..F	97
	Cat Que (JQ675600)	M -	LS	N	R	..	..HN	..	..IH	GQT	L	..TP	97
	Oya (JX983192)	M -	LS	N	R	..	..HN	..	..IH	GQT	L	..TP	97
	Ingwavuma (KF697141)	M -	L	N	R	..	..HN	..Y	..IH	EQT	L	..TP	97
	Mermet (KF697152)	..	L	N	R	..	..HN	..Y	..IH	EQT	L	..TP	96
	Manzanilla (KF697148)	M -	L	N	R	..	..HN	..Y	..IH	EQT	L	..TP	97
	Simbu (HE795110)	..	L	TY	..	V	..	G	..	LVGMGNL	S	..	92
	Shuni (HE800143)	..	F	L	IS	R	T	SG	..	L	NMGPN	I	92
Aino (HE795089)	..	F	L	IS	R	T	SG	..	L	NMGPN	I	92	
Peaton (HE795095)	..	F	L	IS	R	T	SG	..	L	NMGPS	I	92	
Akabane	..	F	..	MQ	..	M	G	..	SVSMGSS	T	..L	92	
Tinaroo (AB000819)	..	F	..	MQ	..	T	M	G	..	SVSMGSS	T	..L	92
Sabo (HE795098)	..	MF	..	MQ	..	T	TRG	..R	SVSMGNI	T	SL	93	
Douglas (HE795092)	..	..	MQ	..	T	..	SG	..	LVSMGNN	I	S	92	
Sathuperi (HE795104)	..	..	MQ	..	T	..	LG	..	LVSMGSN	T	S	92	
Schmallenberg	..	..	MQ	..	T	..	SG	..	LVSMGNN	T	S	92	
Shamonda (HE795107)	..	..	MQ	..	T	..	SG	..	LVSMGNN	I	S	92	
Leanyer (HM627177)	..	M	ID	LQSSQA	..	L	K	DT	..I	S	..H	94	