

Characterization of Fitzroy River Virus and Serologic Evidence of Human and Animal Infection

Technical Appendix Table. Detection of neutralizing antibodies to Fitzroy River virus in humans and animals in northern Western Australia and Northern Territory, Australia*

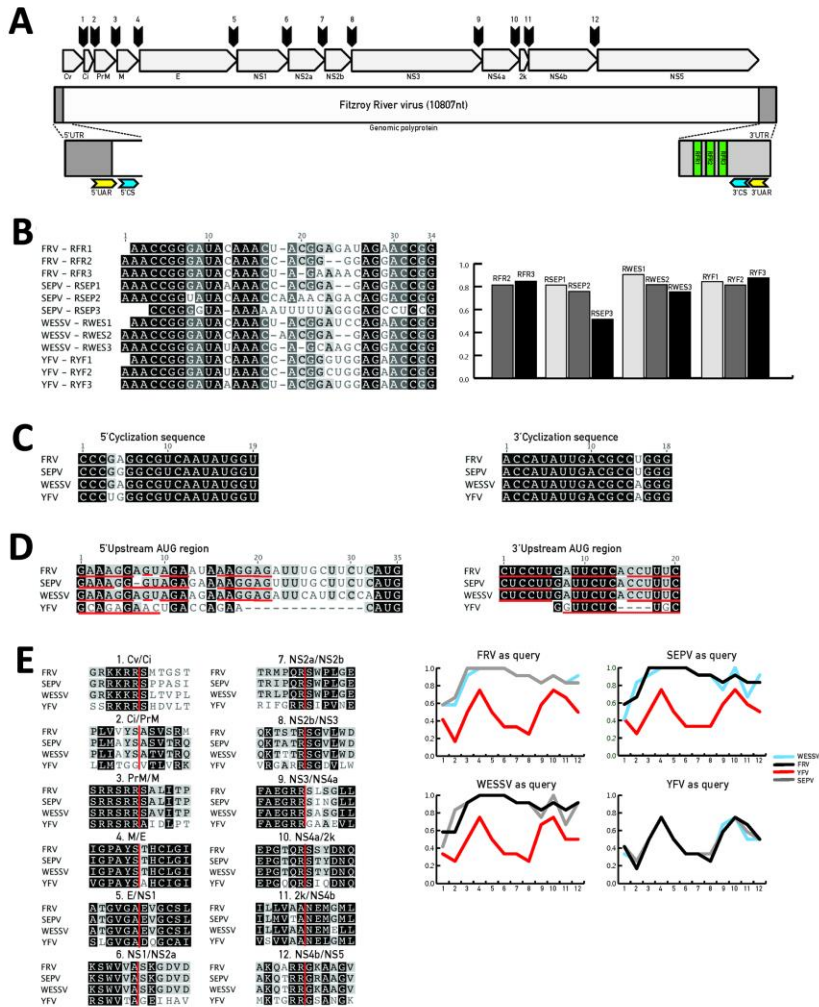
Animal, location	Year													
	2009/10		2010/11		2011/12		2012/13		2013/14		2014/15		Total	
	No. tested	No. (%) pos	No. tested	No. (%) pos	No. tested	No. (%) pos	No. tested	No. (%) pos	No. tested	No. (%) pos	No. tested	No. (%) pos	No. tested	No. (%) pos
Humans, Western Australia														
West Kimberley									150	1 (0.7)	117	2 (1.7)	267	3 (1.1)
Northeast Kimberley									50		38		88	
Southeast Kimberley									4		7		11	
Subtotal									204	1 (0.5)	162	2 (1.2)	366	3 (0.8)
Cattle, Northern Territory														
Katherine Research Station†	21	1 (4.8)	23		23		23	6 (26.1)					90	7 (7.8)
Beatrice Hill Farm‡							24	1 (4.2)	22	1 (4.5)			46	2 (4.3)
Douglas Daly Research Farm							17		17				34	
Victoria River Research Station	20		19				18	6 (33.3)					57	6 (10.5)
Subtotal	41	1 (2.4)	42		23		82	13 (15.9)	39	1 (2.6)			227	15 (6.6)
Horses, Northern Territory														
Mataranka	8												8	
Cave Creek	3												3	
Beatrice Hill			4										4	
Douglas Daly			4										4	
Kirkimbie			5										5	
Humbert River					8								8	
Katherine					4		5	3 (60.0)					9	3 (33.3)
Wave Hill					10								10	
Alice Springs					2								2	
Victoria River					10		3	2 (66.7)					13	2 (15.4)
Avago					3								3	
Darwin					3								3	
Killarney							15	6 (40.0)					15	6 (40.0)
Subtotal	11		13		40		23	11 (47.8)					87	11 (12.6)
Chickens, Northern Territory														
Beatrice Hill					12								12	
Gove					6								6	
Leanyer					16	1(6.3)					7		23	1 (4.3)
Howard Springs					9						10		19	
Katherine	12		10		19				11				52	
Nathan River	10		12				5						27	
Tennant Creek	11		11				10		7				39	

Animal, location	Year													
	2009/10		2010/11		2011/12		2012/13		2013/14		2014/15		Total	
	No. tested	No. (%) pos	No. tested	No. (%) pos	No. tested	No. (%) pos	No. tested	No. (%) pos	No. tested	No. (%) pos	No. tested	No. (%) pos	No. tested	No. (%) pos
Subtotal	33		33		62	1 (1.6)	15		18		17		178	1 (0.6)
Total	85	1 (1.2)	88		125	1 (0.8)	120	24 (20.0)	261	2 (0.8)	179	2 (1.1)	858	30 (3.5)

*Pos, positive.

†Includes 1 seroconversion from November through January 2012 and 2013 and 1 from March through April 2012 and 2013.

‡Includes 1 seroconversion from March and April 2012 and 2013.



Technical Appendix Figure. A) Genome of Fitzroy River virus in 5'→3' orientation, showing post-translational cleavage sites (filled black arrows) and conserved UTR sequences, CS - cyclization sequence (blue arrow), UAR - upstream AUG region (yellow arrow), RFR - FRV tandem repeat sequence (green box), Cv – viral capsid, Ci – intracellular capsid, PrM – premembrane, M – membrane, E – envelope, NS – non-structural. (B)

Nucleotide alignment of upstream AUG region and graph showing nucleotide distances of tandem repeats 1 to 3 (RFR1–3) for FRV, Sepik virus (SEPV), Wesselsbron virus (WESSV) and yellow fever virus (YFV). (C) Nucleotide alignment of cyclization sequence (D) Nucleotide alignment of upstream AUG region. Red underline highlights the inverted complementary sequence. (E) Amino acid alignment of cleavage recognition sites. The red line denotes cleavage site. Line graphs show percent identity across each cleavage site, numbered.