

S2 Table. Average sequence identities determined for the Ov 8 ex2 nucleotide (A) and derived amino acid (B) sequences obtained between South African OvHV-2 strains compared to reference strains.

A	Nucleotide sequence ID		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	Ov8 ex2/NC007646/Ref	(1)	ID	1.000	0.995	0.985	0.985	0.980	0.980	0.975	0.960	0.960	0.955	0.960	0.965	0.960	0.960	0.945	0.960	0.955	0.960	0.960	0.960	0.960	0.955	0.955	0.925
	Ov8 ex2/AY839756/Ref	(2)		ID	1.000	0.985	0.985	0.980	0.980	0.975	0.960	0.960	0.955	0.960	0.965	0.960	0.960	0.945	0.960	0.955	0.960	0.960	0.960	0.960	0.955	0.955	0.925
	Ov8 ex2/DQ198083/Ref	(3)			0.995	0.995	ID	0.990	0.990	0.985	0.985	0.980	0.965	0.965	0.960	0.965	0.960	0.965	0.950	0.965	0.960	0.965	0.965	0.965	0.960	0.960	0.930
	Ov8 ex2-24/WC/2008	(4)			0.985	0.985	0.990	ID	0.980	0.975	0.975	0.970	0.955	0.955	0.950	0.955	0.960	0.955	0.955	0.940	0.955	0.960	0.955	0.955	0.955	0.950	0.920
	Ov8 ex2-11/WC/2008	(5)			0.985	0.985	0.990	0.980	ID	0.985	0.995	0.990	0.965	0.960	0.955	0.960	0.965	0.960	0.945	0.960	0.955	0.960	0.960	0.960	0.960	0.960	0.930
	Ov8 ex2-8/EC/2007	(6)			0.980	0.980	0.985	0.975	0.985	ID	0.980	0.975	0.960	0.955	0.950	0.955	0.960	0.955	0.950	0.955	0.950	0.955	0.955	0.955	0.955	0.925	
	Ov8 ex2-12/G/2008	(7)			0.980	0.980	0.985	0.975	0.995	0.980	ID	0.995	0.970	0.955	0.950	0.955	0.960	0.955	0.955	0.940	0.955	0.950	0.955	0.955	0.955	0.925	
	Ov8 ex2-1/FS/2009	(8)			0.975	0.975	0.980	0.970	0.990	0.975	0.995	ID	0.965	0.960	0.945	0.950	0.950	0.955	0.950	0.935	0.950	0.945	0.950	0.950	0.960	0.930	
	Ov8 ex2-13/WC/2009	(9)			0.960	0.960	0.965	0.955	0.965	0.960	0.970	0.965	ID	0.975	0.970	0.975	0.980	0.975	0.975	0.960	0.975	0.970	0.975	0.975	0.985	0.955	
	Ov8 ex2-3/FS/2008	(10)			0.960	0.960	0.965	0.955	0.960	0.955	0.955	0.960	0.975	ID	0.985	0.975	0.980	0.975	0.975	0.960	0.975	0.970	0.975	0.975	0.980	0.950	
	Ov8 ex2-16/WC/2008	(11)			0.955	0.955	0.960	0.950	0.955	0.950	0.945	0.970	0.985	ID	0.970	0.975	0.970	0.970	0.955	0.970	0.965	0.970	0.970	0.970	0.965	0.935	
	Ov8 ex2-37/WC/2009	(12)			0.960	0.960	0.965	0.955	0.960	0.955	0.955	0.950	0.975	0.975	ID	0.970	0.989	0.989	0.974	0.989	0.984	0.989	0.989	0.989	0.970	0.940	
	Ov8 ex2-38/WC/2009	(13)			0.965	0.965	0.970	0.960	0.965	0.960	0.960	0.955	0.980	0.980	0.975	0.994	ID	0.994	0.994	0.979	0.994	0.989	0.994	0.994	0.975	0.945	
	Ov8 ex2-27/EC/2007	(14)			0.960	0.960	0.965	0.955	0.960	0.955	0.955	0.950	0.975	0.975	0.970	0.989	0.994	ID	1.000	0.984	1.000	0.994	1.000	1.000	0.980	0.950	
	Ov8 ex2-28/EC/2007	(15)			0.960	0.960	0.965	0.955	0.960	0.955	0.955	0.950	0.975	0.975	0.970	0.989	0.994	1.000	ID	0.984	1.000	0.994	1.000	1.000	0.980	0.950	
	Ov8 ex2-2/FS/2009	(16)			0.945	0.945	0.950	0.940	0.945	0.950	0.940	0.935	0.960	0.960	0.955	0.974	0.979	0.984	ID	0.984	0.979	0.984	0.984	0.984	0.965	0.935	
	Ov8 ex2-5/NW/2008	(17)			0.960	0.960	0.965	0.955	0.960	0.955	0.955	0.950	0.975	0.975	0.970	0.989	0.994	1.000	1.000	ID	0.984	1.000	1.000	1.000	0.980	0.950	
	Ov8 ex2-15/WC/2009	(18)			0.955	0.955	0.960	0.960	0.955	0.950	0.955	0.945	0.970	0.970	0.965	0.984	0.989	0.994	0.994	0.979	ID	0.994	0.994	0.994	0.975	0.945	
	Ov8 ex2-40/G/2009	(19)			0.960	0.960	0.965	0.955	0.960	0.955	0.955	0.950	0.975	0.975	0.970	0.989	0.994	1.000	1.000	0.984	1.000	0.994	ID	1.000	0.980	0.950	
	Ov8 ex2-34/NC/2009	(20)			0.960	0.960	0.965	0.955	0.960	0.955	0.955	0.950	0.975	0.975	0.970	0.989	0.994	1.000	1.000	0.984	1.000	0.994	1.000	ID	0.980	0.950	
	Ov8 ex2-35/NC/2009	(21)			0.960	0.960	0.965	0.955	0.960	0.955	0.955	0.950	0.975	0.975	0.970	0.989	0.994	1.000	1.000	0.984	1.000	0.994	1.000	ID	0.980	0.950	
	Ov8 ex2-42/FS/2009	(22)			0.960	0.960	0.965	0.955	0.960	0.955	0.955	0.950	0.975	0.975	0.970	0.989	0.994	1.000	1.000	0.984	1.000	0.994	1.000	ID	0.980	0.950	
	Ov8 ex2-33/K2N/2009	(23)			0.955	0.955	0.960	0.950	0.960	0.955	0.955	0.960	0.985	0.980	0.965	0.970	0.975	0.980	0.980	0.965	0.980	0.975	0.980	0.980	0.980	0.970	
	Ov8 ex2-39/K2N/2009	(24)			0.955	0.955	0.960	0.950	0.960	0.955	0.955	0.960	0.985	0.980	0.965	0.970	0.975	0.980	0.980	0.965	0.980	0.975	0.980	0.980	1.000	0.970	
	Ov8 ex2-36/NW/2009	(25)			0.925	0.925	0.930	0.920	0.930	0.925	0.925	0.930	0.955	0.950	0.935	0.940	0.945	0.950	0.950	0.935	0.950	0.945	0.950	0.950	0.950	ID	
B	Amino acid sequence ID		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	Ov8 ex2/NC007646/Ref	(1)	ID	1.000	0.985	0.970	0.970	0.970	0.970	0.970	0.970	0.910	0.955	0.955	0.970	0.970	0.970	0.970	0.940	0.970	0.970	0.970	0.970	0.970	0.970	0.910	0.910
	Ov8 ex2/AY839756/Ref	(2)		ID	0.985	0.970	0.970	0.970	0.970	0.970	0.970	0.910	0.955	0.955	0.970	0.970	0.970	0.940	0.970	0.970	0.970	0.970	0.970	0.970	0.910	0.910	
	Ov8 ex2/DQ198083/Ref	(3)			0.985	0.985	ID	0.985	0.985	0.985	0.985	0.925	0.970	0.970	0.985	0.985	0.985	0.955	0.985	0.985	0.985	0.985	0.985	0.985	0.925	0.925	
	Ov8 ex2-24/WC/2008	(4)			0.970	0.970	0.985	ID	0.970	0.970	0.970	0.910	0.955	0.955	0.970	0.970	0.970	0.940	0.970	0.970	0.970	0.970	0.970	0.970	0.910	0.910	
	Ov8 ex2-11/WC/2008	(5)			0.970	0.970	0.985	0.970	ID	0.970	1.000	0.910	0.955	0.955	0.970	0.970	0.970	0.940	0.970	0.970	0.970	0.970	0.970	0.970	0.910	0.910	
	Ov8 ex2-8/EC/2007	(6)			0.970	0.970	0.985	0.970	0.970	ID	0.970	0.970	0.910	0.955	0.955	0.970	0.970	0.970	0.955	0.970	0.970	0.970	0.970	0.970	0.910	0.910	
	Ov8 ex2-12/G/2008	(7)			0.970	0.970	0.985	0.970	1.000	0.970	ID	1.000	0.910	0.955	0.955	0.970	0.970	0.970	0.940	0.970	0.970	0.970	0.970	0.970	0.910	0.910	
	Ov8 ex2-1/FS/2009	(8)			0.970	0.970	0.985	0.970	1.000	0.970	1.000	ID	0.910	0.955	0.955	0.970	0.970	0.970	0.940	0.970	0.970	0.970	0.970	0.970	0.910	0.910	
	Ov8 ex2-13/WC/2009	(9)			0.910	0.910	0.925	0.910	0.910	0.910	0.910	ID	0.910	0.911	0.911	0.925	0.925	0.925	0.925	0.895	0.925	0.925	0.925	0.925	1.000	1.000	
	Ov8 ex2-3/FS/2008	(10)			0.955	0.955	0.970	0.955	0.955	0.955	0.955	0.955	0.911	ID	1.000	0.985	0.985	0.985	0.985	0.955	0.985	0.985	0.985	0.985	0.911	0.911	
	Ov8 ex2-16/WC/2008	(11)			0.955	0.955	0.970	0.955	0.955	0.955	0.955	0.955	0.911	1.000	ID	0.985	0.985	0.985	0.985	0.955	0.985	0.985	0.985	0.985	0.911	0.911	
	Ov8 ex2-37/WC/2009	(12)			0.970	0.970	0.985	0.970	0.970	0.970	0.970	0.970	0.925	0.985	0.985	ID	1.000	1.000	0.969	1.000	1.000	1.000	1.000	1.000	0.925	0.925	
	Ov8 ex2-38/WC/2009	(13)			0.970	0.970	0.985	0.970	0.970	0.970	0.970	0.970	0.925	0.985	0.985	1.000	ID	1.000	1.000	0.969	1.000	1.000	1.000	1.000	0.925	0.925	
	Ov8 ex2-27/EC/2007	(14)			0.970	0.970	0.985	0.970	0.970	0.970	0.970	0.970	0.925	0.985	0.985	1.000	1.000	ID	1.000	1.000	0.969	1.000	1.000	1.000	0.925	0.925	
	Ov8 ex2-28/EC/2007	(15)			0.970	0.970	0.985	0.970	0.970	0.970	0.970	0.970	0.925	0.985	0.985	1.000	1.000	1.000	ID	0.969	1.000	1.000	1.000	1.000	0.925	0.925	
	Ov8 ex2-2/FS/2009	(16)			0.940	0.940	0.955	0.940	0.940	0.955	0.940	0.895	0.955	0.955	0.969	0.969	0.969	0.969	ID	0.969	0.969	0.969	0.969	0.969	0.895	0.895	
	Ov8 ex2-5/NW/2008	(17)			0.970	0.970	0.985	0.970	0.970	0.970	0.970	0.970	0.925	0.985	0.985	1.000	1.000	1.000	1.000	0.969	ID	1.000	1.000	1.000	0.925	0.925	
	Ov8 ex2-15/WC/2009	(18)			0.970	0.970	0.985	0.970	0.970	0.970	0.970	0.970	0.925	0.985	0.985	1.000	1.000	1.000	0.969	1.000	ID	1.000	1.000	1.000	0.925	0.925	
	Ov8 ex2-40/G/2009	(19)			0.970	0.970	0.985	0.970	0.970	0.970	0.970	0.970	0.925	0.985	0.985	1.000	1.000	1.000	0.969	1.000	1.000	ID	1.000	1.000	0.925	0.925	
	Ov8 ex2-34/NC/2009	(20)			0.970	0.970	0.985	0.970	0.970	0.970	0.970	0.970	0.925	0.985	0.985	1.000	1.000	1.000	0.969	1.000	1.000	ID	1.000	1.000	0.925	0.925	
	Ov8 ex2-35/NC/2009	(21)			0.970	0.970	0.985	0.970	0.970	0.970	0.970	0.970	0.925	0.985	0.985	1.000	1.000	1.000	0.969	1.000	1.000	1.000	ID	1.000	0.925	0.925	
	Ov8 ex2-42/FS/2009	(22)			0.970	0.970	0.985	0.970	0.970	0.																	

The shaded cells contain values comparing SA sequences to reference sequences.