Additional Table 1. Similarity matrix of 16S rRNA sequences of selected ehrlichiae

Levels of similarity (1-distance) were determined by maximum-likelihood distance using DNADIST (PHYLIP) with transition/transversion ratio set at 5.2 (Ina, 1998) and expressed as percentages. Pair-wise distances were calculated using the PAUP* software (HKY85 model using empirical estimation of the transition/transversion ratio, 2.50).

Taxon (host origin)	Accession no.	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	26	27	28	29	30	31	32	33	34
1. *Anaplasma marginale*	M60313																																		
2. *Anaplasma centrale*	AF318944	99.8																																	
3. *Anaplasma ovis*	AF318945	99.1	99.3																																
4. *Anaplasma centrale* Japan	AF283007	99.1	98.9	98.2																															
5. *Ehrlichia* sp. HGE agent	U02521	98.4	98.2	97.5	97.5																														
6. *Ehrlichia phagocytophila* Old Sourhope	M73220	98.2	98.0	97.3	97.3	99.8																													
7. *Ehrlichia equi*	M73223	98.2	98.0	97.3	97.3	99.8	100																												
8. *Ehrlichia equi* Atempo	AF036646	98.0	97.8	97.1	97.1	99.6	99.8	99.8																											
9. *Ehrlichia platys* Gzh981	AF156784	98.0	97.8	97.1	97.1	99.1	99.3	99.3	99.1																										
10. *Ehrlichia platys*	M82801	98.0	97.8	97.1	97.1	99.1	99.3	99.3	99.1	100																									
11. *Ehrlichia bovis*	U03775	97.3	97.5	97.3	96.4	96.6	96.8	96.8	96.6	97.5	97.5																								
12. *Ehrlichia* sp. GA4 (*Odocoileus virginianus*)	U27104	97.3	97.1	97.3	96.4	98.4	98.2	98.2	98.0	98.9	98.9	96.8																							
13. *Ehrlichia* sp. (*Amblyomma americanum* tick)	U52514	97.1	96.8	97.1	96.1	98.2	98.0	98.0	97.8	98.7	98.7	96.6	99.8																						
14. *Ehrlichia canis* Oklahoma[T]	M73221	94.0	93.7	93.0	93.5	94.2	94.0	94.0	93.7	93.2	93.2	92.5	92.7	92.5																					
15. *Ehrlichia* sp. Germishuys	U54805	94.2	94.0	93.2	93.7	94.5	94.2	94.2	94.0	93.5	93.5	92.8	93.0	92.8	99.8																				
16. *Ehrlichia ovina*	AF318946	94.2	94.0	93.2	93.7	94.5	94.2	94.2	94.0	93.5	93.5	92.8	93.0	92.8	99.8	100																			
17. *Ehrlichia chaffeensis* Arkansas[T]	M73222	94.2	94.0	93.2	93.2	94.9	94.7	94.7	94.5	94.0	94.0	92.8	93.2	93.0	98.9	99.1	99.1																		
18. *Ehrlichia ewingii* Stillwater[T]	M73227	94.0	93.7	93.0	93.0	94.7	94.5	94.5	94.2	93.7	93.7	92.5	93.0	92.8	98.7	98.9	98.9	99.8																	
19. *Ehrlichia muris* AS145[T]	U15527	94.0	93.7	93.0	93.0	94.7	94.9	94.9	94.7	94.2	94.2	93.0	93.0	92.8	97.3	97.5	97.5	98.4	98.7																
20. *Cowdria ruminantium* Crystal Springs	X61659	93.2	93.0	92.7	92.2	94.0	93.7	93.7	93.5	93.0	93.0	91.7	92.7	92.5	97.5	97.7	97.7	98.7	98.4	97.5															
21. *Wolbachia pipientis* (*Culex pipiens*)	X61768	87.5	87.3	86.4	87.5	87.8	87.8	87.8	87.6	88.1	88.1	86.8	87.8	87.6	87.5	87.7	87.7	87.7	88.0	88.3	88.3														
22. *Wolbachia* sp. (*Trichogramma deion*)	L02887	88.0	87.7	86.8	88.0	88.3	88.3	88.3	88.0	88.6	88.6	87.2	88.0	87.7	87.9	88.2	88.2	87.6	87.9	88.2	88.2	99.3													
23. *Wolbachia* sp. (*Drosophila mauritiana*)	U17060	86.7	86.4	85.6	86.7	87.0	87.0	87.0	86.8	87.3	87.3	86.0	87.0	86.8	86.6	86.9	86.9	86.9	87.2	87.5	87.5	98.9	99.1												
24. *Wolbachia* sp. (*Trichogramma deion*)	L02888	87.0	86.8	85.9	87.0	87.3	87.3	87.3	87.1	87.6	87.6	86.3	87.3	87.1	87.0	87.2	87.2	86.7	87.0	87.2	87.2	98.7	99.6	98.4											
25. *Wolbachia* sp. (*Sitophilus oryzae*)	AF035160	87.0	86.7	85.9	87.0	87.8	87.8	87.8	87.6	88.1	88.1	86.2	87.8	87.6	88.3	88.6	88.6	88.0	88.3	89.7	88.6	98.0	98.2	97.3	97.5										
26. *Wolbachia* sp. (*Brugia malayi*)	AJ010275	88.1	87.8	87.0	88.1	88.4	88.4	88.4	88.2	89.2	89.2	87.4	88.9	88.7	87.8	88.0	88.0	88.0	88.3	88.6	88.0	97.5	97.7	96.8	97.1	97.3									
27. *Wolbachia* sp. (*Onchocerca ochengi*)	AJ010276	88.1	87.8	87.0	88.1	88.9	88.9	88.9	88.7	89.2	89.2	87.3	88.9	88.7	87.5	87.7	87.7	88.3	88.6	88.8	88.3	97.3	97.0	96.6	96.4	96.1	97.1								
28. *Wolbachia* sp. (*Dirofilaria immitis*)	Z49261	88.9	88.6	87.8	88.9	89.7	89.7	89.7	89.5	90.0	90.0	88.2	89.7	89.5	88.0	88.3	88.3	88.3	88.6	88.8	88.3	96.8	97.0	96.1	96.4	96.1	97.1	97.8							
29. *Neorickettsia helminthoeca* (canine)	U12457	87.2	86.9	86.6	86.6	86.9	86.6	86.6	86.4	86.9	86.9	86.4	86.8	86.6	88.2	88.0	88.0	88.0	88.3	87.1	87.1	86.3	86.1	85.4	85.4	86.6	86.0	85.4	85.7						
30. *Ehrlichia risticii* Illinois[T]	M21290	84.9	84.6	84.3	84.9	85.2	85.2	85.2	84.9	85.5	85.5	84.4	85.6	85.4	84.8	84.6	84.6	84.6	84.8	84.0	84.6	85.3	85.2	84.5	84.5	84.5	84.8	83.9	84.8	96.6					
31. *Ehrlichia sennetsu* Miyayma	M73219	84.6	84.3	84.0	84.6	84.9	84.9	84.9	84.6	85.2	85.2	84.1	85.4	85.2	84.6	84.3	84.3	84.3	84.6	83.7	84.3	85.1	84.9	84.2	84.2	84.2	84.5	83.6	84.5	96.3	99.8				
32. *Ehrlichia* sp. SF agent	U34280	84.3	84.0	83.7	84.3	84.9	84.9	84.9	84.6	85.2	85.2	83.8	85.4	85.2	84.3	84.0	84.0	84.0	84.3	83.4	84.0	85.1	84.9	84.2	84.2	84.5	84.5	83.6	84.5	96.1	99.6	99.3			
33. *Ehrlichia risticii* CATE	AF170727	85.5	85.2	84.3	85.5	85.8	85.8	85.8	85.5	86.1	86.1	85.0	85.7	85.5	85.4	85.2	85.2	85.2	85.4	84.6	84.6	85.9	85.8	85.1	85.1	85.1	85.3	84.5	85.4	96.3	99.3	99.1	98.9		
34. *Ehrlichia risticii* Bunn	AF036649	83.3	83.0	82.7	83.3	83.6	83.6	83.6	83.3	83.9	83.9	82.8	84.4	84.4	83.3	83.0	83.0	83.0	83.3	82.4	83.0	83.8	83.6	82.9	83.2	82.9	83.2	82.3	83.2	94.9	98.4	98.2	98.0	97.8	
35. *Rickettsia rickettsii*	L36217	84.6	84.3	84.3	84.0	83.1	82.8	82.8	82.6	81.9	81.9	81.7	81.6	81.4	84.3	84.6	84.6	84.6	84.9	84.3	85.8	83.4	83.2	83.1	82.3	84.0	82.2	82.8	82.2	85.0	83.0	82.7	82.7	83.6	81.4
36. *Rickettsia typhi*	U12463	83.4	83.1	83.1	83.4	82.0	82.3	82.3	82.0	81.3	81.3	81.7	80.4	80.2	84.1	84.3	84.3	83.8	84.1	84.1	84.9	82.5	82.4	82.3	81.4	82.9	81.4	81.9	81.3	84.2	82.7	82.4	82.4	83.3	81.1
37. *Escherichia coli*	J01859	78.5	78.2	78.5	79.5	77.9	78.3	78.3	78.0	78.6	78.6	78.0	78.2	78.0	75.6	76.0	76.0	75.3	75.6	75.6	76.0	77.1	77.4	76.8	76.5	77.4	77.4	77.7	78.7	78.7	77.5	77.5	77.8	77.5	75.5
38. *Chlamydia trachomatis*	AE001345	67.9	67.6	67.6	67.9	67.9	67.9	67.9	67.6	67.6	67.6	66.9	68.1	67.9	64.6	65.0	65.0	64.6	65.0	65.4	64.6	65.9	66.4	65.6	66.7	66.3	66.4	65.9	65.6	63.5	64.2	64.2	64.2	64.2	61.7
39. *Haemobartonella felis*	U95297	66.3	65.9	66.7	66.3	67.4	67.8	67.8	67.4	66.7	66.7	65.2	66.9	66.6	65.0	65.0	65.0	64.7	65.0	65.0	64.3	65.2	65.7	64.8	65.9	64.7	64.1	64.0	63.6	63.3	64.1	63.7	64.1	64.1	62.3
40. *Eperythrozoon wenyonii*	AF016546	60.0	60.4	60.5	59.2	59.9	59.5	59.5	59.2	59.1	59.1	59.6	59.3	59.1	59.9	59.5	59.5	59.9	60.3	60.3	59.4	59.5	59.2	58.7	59.1	59.0	57.4	57.8	57.4	57.3	57.1	57.1	57.1	57.1	55.1