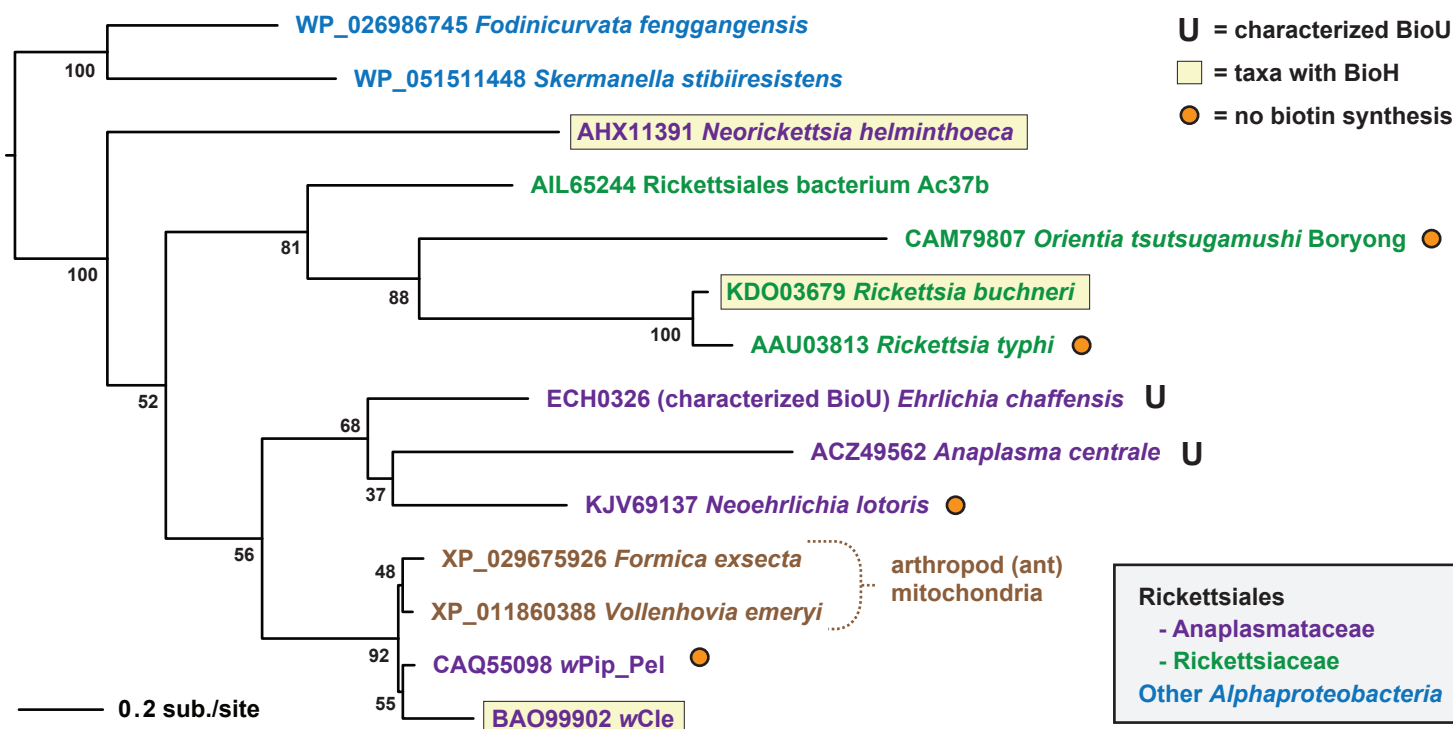


B

	Otsu	Nhel	Acen	Rtyp	Rbuc	R37b	wCle	wPip_Pel	Nlot	Echa
● <i>Orientia tsutsugamushi</i> Boryong (Otsu)	100.00									
■ <i>Neorickettsia helminthoeca</i> (Nhel)	31.56	100.00								
U <i>Anaplasma centrale</i> (Acen)	34.01	37.08	100.00							
● <i>Rickettsia typhi</i> (Rtyp)	40.48	31.97	35.92	100.00						
■ <i>Rickettsia buchneri</i> (Rbuc)	41.50	34.43	38.87	88.49	100.00					
<i>Rickettsiales bacterium Ac37b</i> (R37b)	41.11	37.30	36.90	46.22	45.85	100.00				
■ wCle	38.21	40.25	44.90	37.14	36.73	44.13	100.00			
● wPip_Pel	37.10	43.15	43.15	39.43	37.50	46.80	84.27	100.00		
● <i>Neoehrlichia lotoris</i> (Nlot)	40.24	38.93	45.82	37.60	37.60	41.57	52.02	52.82	100.00	
U <i>Ehrlichia chaffeensis</i> (Echa)	41.67	37.45	45.02	41.37	39.44	41.96	52.82	54.98	60.24	100.00

C



D

NCBI taxid	Taxon	Blastp results (%ID)							BioK	BioU
		BioV	BioG	BtsA	BioJ	BioZ *	EstN1			
768	Anaplasma	NSS	NSS	NSS	NSS	33	~27; (2)	NSS	Present	
943	Ehrlichia	NSS	NSS	NSS	NSS	33	~27; (2)	NSS	Present	
2021221	Rickettsiales endosymbiont of Trichoplax sp. H2	NSS	NSS	NSS	NSS	33	NSS	NSS	NSS	
2602574	Ca. Aquarickettsia rohweri	NSS	NSS	NSS	NSS	33	NSS	NSS	NSS	
1528098	Rickettsiales bacterium Ac37b	NSS	NSS	NSS	NSS	35	31; AIL65750	NSS	Present	
752179	Occidentia massiliensis	NSS	NSS	NSS	NSS	35	NSS	NSS	NSS	
2163644	Ca. Deianiraea vastatrix	NSS	NSS	37; (1)	NSS	30	NSS	NSS	NSS	

(1) QED23496 (5-methyltetrahydropteroyltrimethylglutamate--homocysteine S-methyltransferase); only 12% query coverage

* % similarity to FabH; BioZ is similar to FabH but was able to complement *E. coli* Δ bioH mutants (PMID: 11320134).

(2) similarity to a cohort of MhpC-like Abhydrolase 5 proteins (unrelated to BioU; *E. chaffeensis* Arkansas protein is ECH_0221).