

A

	Max Score	Max Score	Query Cover	E value	Per. ident	Acc. Len	Accession	
Hypothetical protein	<i>Rickettsia tamurae</i>	169	32%	6.00E-50	100	90	WP_152540701.1	
	<i>Rickettsia japonica</i>	155	30%	2.00E-43	97.4	181	WP_014120923.1	
	<i>Rickettsia conorii</i>	154	30%	9.00E-43	96.1	181	WP_014014523.1	
	<i>Rickettsia argasii</i>	153	30%	1.00E-42	96.1	181	WP_045806003.1	
	<i>Rickettsia fournieri</i>	152	30%	4.00E-42	96.1	181	WP_103896886.1	
	<i>Rickettsia slovaca</i>	150	30%	6.00E-42	94.81	144	WP_014419876.1	
	<i>Rickettsia gravesii</i>	151	30%	1.00E-41	94.81	181	WP_017442373.1	
	<i>Rickettsia peacockii</i>	148	30%	6.00E-41	93.51	144	WP_085065668.1	
	<i>Rickettsia</i> sp. Tenjiku01	149	30%	9.00E-41	93.51	181	WP_064429221.1	
	<i>Rickettsia sibirica</i>	146	30%	2.00E-40	92.21	144	WP_004998075.1	
	<i>Rickettsia sibirica</i>	146	30%	3.00E-40	92.21	144	WP_016770294.1	
	<i>Rickettsia philipii</i>	145	30%	4.00E-40	92.21	144	WP_014364856.1	
	<i>Rickettsia tamurae</i>	137	29%	1.00E-35	92	248	WP_215426163.1	
	<i>Rickettsia conorii</i> subsp. raoultii	100	20%	3.00E-23	94.12	81	AJQ51990.1	
	<i>Rickettsia conorii</i>	99.8	20%	9.00E-23	92.16	92	WP_014014522.1	
	<i>Rickettsia argasii</i>	98.6	20%	2.00E-22	92.16	92	WP_045806002.1	
	<i>Rickettsia honei</i>	95.9	20%	2.00E-21	90.2	86	WP_032850298.1	
	<i>Rickettsia sibirica</i>	95.9	20%	2.00E-21	90.2	92	WP_004998077.1	
	<i>Rickettsia sibirica</i>	95.9	20%	2.00E-21	90.2	92	WP_026054999.1	
	<i>Rickettsia slovaca</i>	95.9	20%	3.00E-21	90.2	92	WP_014419875.1	
	<i>Rickettsia parkeri</i>	97.4	37%	4.00E-21	92.16	158	QWB86932.1	
	<i>Rickettsia parkeri</i>	97.4	38%	4.00E-21	92.16	157	WP_012719858.1	
	<i>Rickettsia parkeri</i>	96.3	37%	1.00E-20	90.2	158	WP_146709252.1	
	<i>Rickettsia conorii</i>	92.8	20%	3.00E-20	88.24	92	WP_010977480.1	
	<i>Rickettsia peacockii</i>	92.8	20%	4.00E-20	88.24	92	WP_085065667.1	
	Endosymbiont of <i>Proechinophthirus fluctus</i>	91.7	38%	1.00E-19	86.27	90	KYP98281.1	
	<i>Rickettsia japonica</i> YH	73.6	15%	5.00E-13	87.18	82	BAK96855.1	
	<i>Rickettsia conorii</i>	72.4	16%	2.00E-12	85.37	82	WP_029374682.1	
	* <i>Stylophora pistillata</i>	77.8	46%	4.00E-12	42.62	2285	PFX12133.1	
	Hypothetical protein	<i>Rickettsia</i> endosymbiont of <i>Ixodes pacificus</i>	70.1	13%	6.00E-12	100	47	KJW02813.1
		<i>Rickettsia monacensis</i>	65.9	13%	2.00E-10	96.97	33	CEO17499.1
		<i>Rickettsia conorii</i>	65.5	22%	5.00E-10	64.29	67	WP_014014521.1
		<i>Rickettsia felis</i>	65.1	13%	7.00E-10	85.29	69	WP_039594829.1
<i>Rickettsia fournieri</i>		62.8	13%	3.00E-09	87.88	52	WP_198913008.1	
<i>Rickettsia japonica</i> YH		60.5	13%	2.00E-08	84.85	44	BAK96854.1	
<i>Rickettsia argasii</i>		60.5	13%	2.00E-08	84.85	52	WP_186786312.1	
<i>Rickettsia conorii</i>		59.7	13%	5.00E-08	84.85	52	WP_156860613.1	
<i>Rickettsia philipii</i> str. 364D		58.5	13%	9.00E-08	87.88	33	AFB26505.1	
<i>Rickettsia argasii</i> T170-B		54.3	11%	4.00E-06	83.33	41	KJW03890.1	

* *Stylophora pistillata* YebQ



B

rCRCA-1	C	<i>R. buchneri</i>	-----LTIQCLE--EIKDAFEELADFEKQKQKTPKNSKHPHSYWDSLMFYVLENLYNDCE-----	54
	S	<i>R. tamurae</i>	MDYSQOTLKFKINYPMFRMEIKDAFEELADFEKQKQKTPKNSKHPHS-----MFYVLENLYNDCE-----	61
	F	<i>R. tamurae</i>	-----MWLLSPALRWEIFATFKALANKELQLTKWVDS--KYKHSFWDELFCF-CIDTLFNDANA-----	55
rCRCA-2	S	<i>R. buchneri</i>	-----MMWLLSPALRWEIFATFKELANKELQLTKWVDS--KYKHSFWNELCF-CIDTLFNDANA-----	56
	C	REIP	----MKHRMMWLLSPALRWEIFATFKELANKELQLTKWVDS--KYKHSFWDELFCF-CIDTLFNDANA-----	60
	S	<i>R. monacensis</i>	-----MMWLLSPALRWEIFATFKELANKELQLTKWVDS--KYKHSFWDELFCF-CIDRLFNDVRQNITMNYAFVLIG	69
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rCRCA-1	C	<i>R. buchneri</i>	----LHEYKPENIGELFYNEEEAKQVYEFCKWFNKLNTENIGENQPDAAYLNHPE-----WHRVYSGAKKLF	117
	S	<i>R. tamurae</i>	----LHEYKPENIGELFYNEEEAKQVYEFCKWFNKLNTENIGENQPDAAYLNHPEICIGF IAVQKSFLNHRVYSGAKKLF	137
	F	<i>R. tamurae</i>	----LDKTSQIKIGLIMYIKKK	73
rCRCA-2	S	<i>R. buchneri</i>	----LDKTSQIKIGLTMYNQEEVEKVNKFSHFYDLTEEIEGKPDYRILRSPT-----VAKDYR-----	112
	C	REIP	----LDKTSQIKIGLTMYNQEEVEKVNKFSHFYDLTEEIEGKPDIEYGHQPQ-----WQKIIDDATLVE	123
	S	<i>R. monacensis</i>	FLMMLDKTSQIKIGLTMYNQEEVEKVNKFSHFYDLTEEIEGKPDIEYGHQPQ-----WQKIIDDATLVE	136
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rCRCA-1	C	<i>R. buchneri</i>	LMDKNKNIILVKSMQF---I I KHNRRKKLME-----KNNLMF	151
	S	<i>R. tamurae</i>	LMDKND----KKYNFSEYYAAYNAQWEE-----TYGKK	167
	F	<i>R. tamurae</i>		73
rCRCA-2	S	<i>R. buchneri</i>	-MKQNN----KANDFSECLAQFNQFNIDGYEDYDDFAIAENTKNGYKLR	156
	C	REIP	IMKQNN----KANDFSECLAQFNQFNIDGYEDYDDFAIAENTKNGYKLR	168
	S	<i>R. monacensis</i>	IMKQNN----KANFSECLAQFNQFNIDGYEDYDDFAIAENTKNGYKLR	181
				* : * : * : * : * : *

C = Complete
S = Split (multiple CDS)
F = Fragment
M Start site of additional CDS

rCRCA-2 NCBI acc. #s: *R. tamurae* (WP_032139358); *R. buchneri* (EER22830, EER22831); REIP (KJW03593); *R. monacensis* (CEO17090, CEO17089).