

Table S1. *Ot* strains from Genbank used in this study

Species of strain	Source	No. Genbank	Geographic location	Time	DNA size(bp)
<i>Karp</i>	Human	M33004	New Guinea	1943	1599
<i>Taiwan Gilliam</i>	–	DQ485289	China Taiwan	2006	1860
<i>Kuioki</i>	Human	M63380	Japan	1981	1599
<i>KM11-2</i>	Human	GU446591	China Taiwan	2010	1608
<i>KG_ST27</i>	Human	MG870317	India	2018	558
<i>NAN057</i>	Human	MK660515	Thailand	2019	468
<i>OtMMC73</i>	–	MK617204	Bangladesh	2018	721
<i>OTVi18</i>	Human	KY635436	India	2017	522
<i>Sxh951</i>	Human	AF050669	China	1998	1544
<i>OTSg62</i>	Human	KF777346	India	2013	315
<i>DS3910C</i>	Chiggers	MK660524	Thailand	2019	495
<i>Boryong</i>	Human	L04956	South Korea	1993	1874
<i>OTE7</i>	Human	KY635435	India	2017	627
<i>KM21-1</i>	Chiggers	GU446605	China Taiwan	2010	1575
<i>CM606</i>	Human	HM777460	Thailand	2010	550
<i>DS2641C</i>	Chiggers	MK660519	Thailand	2019	477
<i>TT0711a</i>	Human	GQ332755	China Taiwan	2009	1551
<i>YNHH65</i>	<i>Eothenomys miletus</i>	KU664516	China	2016	151

Figure S1. Phylogenetic tree based on *Ot* 56kDa gene fragment constructed by a maximum likelihood method.

Notes: ● Positive Samples of Lianghe; ■ Positive Samples of Jianchuan; ▲ Positive Samples of Yulong.

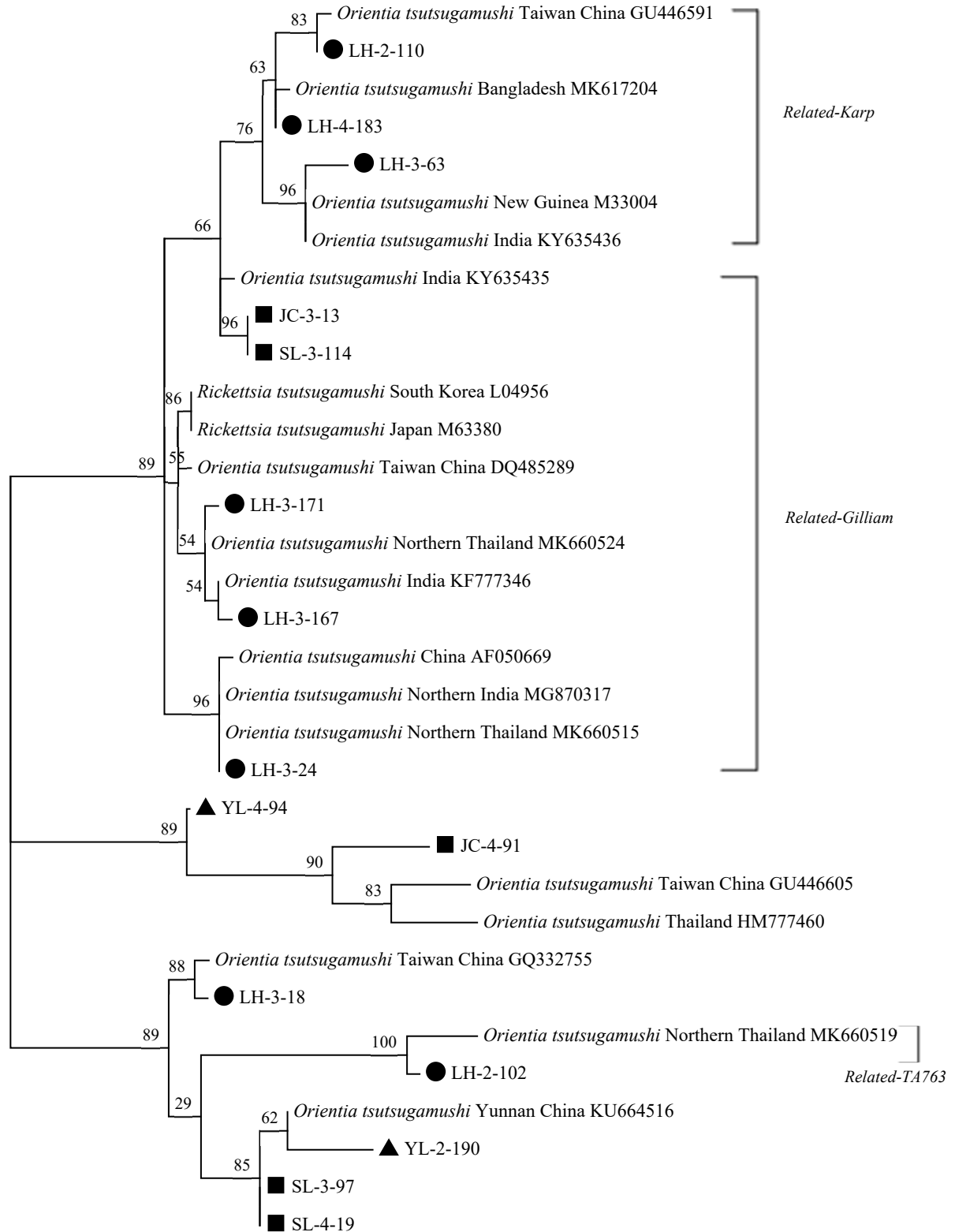


Table S2. *Ot* genotypes of the infected wild small mammals in western Yunnan Province

County	Small Mammals	Positive Sample*	Genotype
Lianghe	<i>Rattus sladeni</i>	LH-2-89	<i>related-Gilliam</i>
Lianghe	<i>Hylomys suillus</i>	LH-2-102	<i>related-TA763</i>
Lianghe	<i>Rattus tanezumi</i>	LH-2-107	<i>related-Karp</i>
Lianghe	<i>Rattus tanezumi</i>	LH-2-110	<i>related-Karp</i>
Lianghe	<i>Rattus tanezumi</i>	LH-3-002	<i>related-Karp</i>
Lianghe	<i>Anourosorex squamipes</i>	LH-3-18	<i>closer Kawasaki</i>
Lianghe	<i>Rattus sladeni</i>	LH-3-24	<i>related-Gilliam</i>
Lianghe	<i>Rattus sladeni</i>	LH-3-63	<i>related-Karp</i>
Lianghe	<i>Rattus sladeni</i>	LH-3-100	<i>related-Gilliam</i>
Lianghe	<i>Rattus sladeni</i>	LH-3-102	<i>related-Gilliam</i>
Lianghe	<i>Rattus sladeni</i>	LH-3-108	<i>related-Gilliam</i>
Lianghe	<i>Suncus murinus</i>	LH-3-162	<i>closer Kawasaki</i>
Lianghe	<i>Rattus sladeni</i>	LH-3-167	<i>related-Gilliam</i>
Lianghe	<i>Rattus tanezumi</i>	LH-3-171	<i>related-Gilliam</i>
Lianghe	<i>Rattus sladeni</i>	LH-4-116	<i>related-Gilliam</i>
Lianghe	<i>Rattus sladeni</i>	LH-4-134	<i>related-Gilliam</i>
Lianghe	<i>Niviventer fulvescens</i>	LH-4-139	<i>related-Gilliam</i>
Lianghe	<i>Rattus tanezumi</i>	LH-4-183	<i>related-Karp</i>
Jianchuan	<i>Eothenomys miletus</i>	SL-1-34	<i>closer Kawasaki</i>
Jianchuan	<i>Crocidura attenuate</i>	SL-3-56	<i>closer Kawasaki</i>
Jianchuan	<i>Eothenomys miletus</i>	SL-3-97	<i>closer Kawasaki</i>
Jianchuan	<i>Eothenomys miletus</i>	SL-3-114	<i>related-Gilliam</i>
Jianchuan	<i>Eothenomys miletus</i>	SL-3-115	<i>closer Kawasaki</i>
Jianchuan	<i>Apodemus draco</i>	SL-3-132	<i>closer Karp</i>
Jianchuan	<i>Eothenomys miletus</i>	SL-4-006	<i>closer Karp</i>
Jianchuan	<i>Eothenomys miletus</i>	SL-4-009	<i>closer Kawasaki</i>
Jianchuan	<i>Eothenomys miletus</i>	SL-4-18	<i>closer Karp</i>
Jianchuan	<i>Eothenomys miletus</i>	SL-4-19	<i>closer Kawasaki</i>
Jianchuan	<i>Eothenomys miletus</i>	SL-4-26	<i>related-Gilliam</i>
Jianchuan	<i>Eothenomys miletus</i>	SL-4-47	<i>closer Kawasaki</i>

Table S2. *Ot* genotypes of the infected wild small mammals in western Yunnan Province (Continued).

County	Small Mammals	Positive Sample	Genotype
Jianchuan	<i>Eothenomys miletus</i>	SL-4-106	<i>closer Kawasaki</i>
Jianchuan	<i>Apodemus draco</i>	JC-1-74	<i>closer Kawasaki</i>
Jianchuan	<i>Apodemus chevrieri</i>	JC-1-106	<i>closer Kawasaki</i>
Jianchuan	<i>Eothenomys miletus</i>	JC-2-43	<i>related-Gilliam</i>
Jianchuan	<i>Eothenomys miletus</i>	JC-2-45	<i>related-Gilliam</i>
Jianchuan	<i>Eothenomys miletus</i>	JC-2-78	<i>closer Kawasaki</i>
Jianchuan	<i>Eothenomys miletus</i>	JC-3-13	<i>related-Gilliam</i>
Jianchuan	<i>Apodemus draco</i>	JC-3-55	<i>related-Gilliam</i>
Jianchuan	<i>Apodemus chevrieri</i>	JC-3-66	<i>closer Kawasaki</i>
Jianchuan	<i>Niviventer andersoni</i>	JC-4-91	<i>closer Karp</i>
Yulong	<i>Niviventer confucianus</i>	YL-2-190	<i>closer Kawasaki</i>
Yulong	<i>Apodemus draco</i>	YL-3-288	<i>closer Karp</i>
Yulong	<i>Apodemus draco</i>	YL-4-94	<i>closer Karp</i>
Yulong	<i>Apodemus draco</i>	YL-4-102	<i>closer Karp</i>
Yulong	<i>Apodemus latronum</i>	YL-4-121	<i>closer Karp</i>

\*Notes: LH: Lianghe county; JC and SL: Jianchuan county; YL: Yulong county.

1: Spring; 2: Summer; 3: Autumn; 4: Winter.