

Supplementary Table 2. Location of sample collection and sample codes in the same vertical order as in Table 1. Accession numbers refer to sequences of the 16S rRNA gene of Ixodidae in GenBank (except for *Ixodes hexagonus* from *Gulo gulo*, of which part of the *cox1* gene was sequenced).

Species	Location of collection	Code of tissue DNA samples	Code of tick DNA samples	Tick species: accession number	GenBank example with 100% identity (difference in bp): country
<i>Felis silvestris</i>	Zemplén Mts.	VM1,VM2=WCA1	WCT1	Ik: OM200035	KY962052: Hungary
<i>Felis silvestris</i>	Golop	WCA3	WCT4-5	Ik: OM200036	KY962054: Hungary
<i>Felis silvestris</i>	Szalonna	WCA2	WCT2-3	Ir: OM200037, OM200041	GU074616: France GU074606: Spain
<i>Felis silvestris</i>	Szendrő	WCA13	-	-	-
<i>Martes foina</i>	Mályi	NY3, NY4=WCA8	-	-	-
<i>Martes foina</i>	Kazincbarcika	nyest1, nyest2	-	-	-
<i>Martes foina</i>	Budapest	WCA15	-	-	-
<i>Martes martes</i>	Abaújszántó	WCA4	WCT25-31	Ir: OM200044, OM200049	GU074606 (1 bp): Spain GU074598: Algeria
<i>Martes martes</i>	Damak	WCA5	WCT6-23	Ir: OM200040, OM200045, Dm: OM200060, OM200061, OM200061, OM200061 Dr: OM200064	Ir: GU074606 (1 bp), GU074588: Slovakia Dm: MH668402: Kazakhstan MH668401: Kazakhstan MH668401 (2 bp), MH668402 (2 bp), Dr: MH645514: Spain
<i>Martes martes</i>	Trizs	WCA7	WCT56-57	-	-
<i>Martes martes</i>	Kaposvár	WCA11	WCT66	Ir: OM200047	GU074588: Slovakia
<i>Mustela nivalis</i>	Szuhakálló	WCA9	WCT58-65	Ia: OM200058	MH708166 (3bp): France
<i>Mustela nivalis</i>	Aggtelek	ME5-6, WCA10	-	-	-
<i>Nyctereutes procyonoides</i>	Aggtelek	WCA6	WCT32-47, 49-55	Ir: OM200038, OM200042, OM200046, OM200051, OM200052, OM200054, OM200056	GU074616: France GU074606: Spain GU074588: Slovakia GU074598 (1 bp): Algeria GU074589: Slovakia GU074590: Slovakia GU074595: Ireland
<i>Gulo gulo</i>	Budapest Zoo	RZS5, RZS6	RZS1	Ih: OM200350	MT659132: Hungary
<i>Lutra lutra</i>	Bánréve	WCA14	WCT88-90	Ic: OM200059	KY962053: Hungary
<i>Sciurus vulgaris</i>	Aggtelek	WRO2	WCT67-74	Ir: OM200043, OM200048, OM200053, OM200057 Dm: OM200065, OM200066	GU074606: Spain GU074588: Slovakia GU074589: Slovakia GU074607: Netherlands Dm: MH668402 (2 bp), MH668401: Kazakhstan
<i>Sciurus vulgaris</i>	Jósvafő	WRO3	WCT75-87	Ir: OM200039, OM200043, OM200050, OM200053, OM200055, OM200057	GU074616: France GU074606: Spain GU074598: Algeria GU074589: Slovakia GU074590: Slovakia GU074607: Netherlands
<i>Sciurus vulgaris</i>	Mád	WRO4	-	-	-
<i>Sciurus vulgaris</i>	Abaújszántó	WRO5	-	-	-

Abbreviations in sample code: WCA= wild carnivore, WRO = wild rodent, WCT = wild carnivore or rodent tick.

Abbreviation of tick species: Ir = *Ixodes ricinus*, Ik = *Ixodes kaiseri*, Ic = *Ixodes canisuga*, Ih = *Ixodes hexagonus*, Ia = *Ixodes acuminatus*, Dm = *Dermacentor marginatus*, Dr = *Dermacentor reticulatus*, Hc = *Haemaphysalis concinna*