

Supplemental Table 1. ELISA and Western blot (WB) analysis of recombinant proteins, immobilized on dextran, with sera of TBE patients or healthy donors.

# sample <sup>a</sup>	TBEV subtype prevalent in the region	IgG titer ELISA	DBD2-D3S	DBD2-D3E	DBD2-D3F	DBD
			ELISA/WB	ELISA/WB	ELISA/WB	WB
96	Siberian	1:2400	+/ <sup>b</sup>	+/+	+/+	–
M 151	European, Siberian	1:200	+/+	+/+	+/+	–
375 (II)	Siberian	1:2800	+/+	+/+	+/+	–
402 (II)	Siberian	n/d <sup>c</sup>	+/+	-/+	+/+	–
M 988	Siberian	<1:100	-/+	-/+	-/+	–
M 2545	Siberian	1:400	+/+	+/+	+/+	–
M 2546	Siberian	1:1400	+/+	+/+	+/+	–
M 2548	Siberian	<1:100	+/+	+/+	+/+	–
M 2549	Siberian	1:1700	+/+	+/+	+/+	–
M 2550	Siberian	1:300	+/+	+/+	+/+	–
M 2551	Far-Eastern	1:1800	+/+	+/+	+/+	–
<b><i>M 1311</i></b>	Siberian	<1:100	-/-	-/-	-/-	–

<sup>a</sup> Serum of a healthy donor is shown in bold italic, all other sera samples are from patients with clinically proven TBE diagnosis.

<sup>b</sup> +/- presence of effect (antibodies in ELISA, or band in WB); -- absence of effect (antibodies in ELISA, or band in WB)

<sup>c</sup> n/d – not done

Supplemental Table 2. Clinical symptoms in mice, immunized by different schemes.

Preparation	N mice	Day 0 1 <sup>st</sup> dose	Preparation	Day 7 2 <sup>nd</sup> dose	Day 14 3 <sup>d</sup> dose	Day 21 <sup>b</sup> i/p 200 LD <sub>50</sub>	Day 42 N mice		Survived animals with clinical symptoms <sup>c</sup>	
							Survived	Healthy	mild (m=1)	severe (m=2)
Standard scheme										
3DIII+AD	10	+ <sup>a</sup>	3DIII+AD	+	+	TBEV Vas	5	0	1	4
Prime-boost scheme										
Tick-E-Vac	10	+	3DIII+AD	+	+	TBEV Vas	10	6	4	0
Reference scheme										
Tick-E-Vac	9	-	Tick-E-Vac	+	+	TBEV Vas	9	9	0	0
Control group										
Saline	10	+	Saline	+	+	TBEV Vas	0	0	0	0

<sup>a</sup> + mice were vaccinated; - mice were not vaccinated

<sup>b</sup> - day of challenge

<sup>c</sup> m=1 if mice were untidy, clumsy, and lost weight over 1.5g for at least 3 days; m=2 if mice showed signs of intoxication, paresis and paralysis of limbs.