## Supplementary Table 1 $\mid$ Neutralization activity (Neut50) of plasma samples against DENV1<sup>a</sup>

Exp.	Immunization	Mouse #1	Mouse #2	Mouse #3	Mouse#4
1 <sup>b</sup>	Control mRNA	<100	<100	<100	<100
	DENV1-NS	<100	<100	nd	nd
$2^{c}$	Control mRNA	<100	<100	<100	<100
	DENV1-NS	<100	<100	<100	<100
3 <sup>d</sup>	DENV1	940	1000	920	nd

<sup>&</sup>lt;sup>a</sup>: The values in each cell correspond to the dilution of plasma sample giving 50% inhibition of DENV1 infection on Vero cells. <sup>b</sup>: Two groups of 4 and 2 HLA-B\*3501 transgenic mice received a prime boost regimen with 10μg control mRNA and DENV1-NS vaccine, respectively, at 4-week interval and plasma samples were tested individually for neutralization activity against DENV1 infection 4 weeks after the boost. <sup>c</sup>: Two groups of 4 HLA-B\*3501 transgenic mice received a prime boost regimen with 10μg control mRNA and DENV1-NS vaccine, respectively, at 4-week interval and plasma samples were tested for neutralization against DENV1 infection on Vero cells 4 weeks after the boost. <sup>d</sup>: Plasma samples from *ifnar-/-* mice obtained 4 weeks after intravenous inoculation with 10<sup>6</sup> pfu DENV1 KDH0026A. nd: not done.