

Supplementary Materials for

**Infection or a third dose of mRNA vaccine elicit neutralizing antibody responses against SARS-CoV-2 in kidney transplant recipients**

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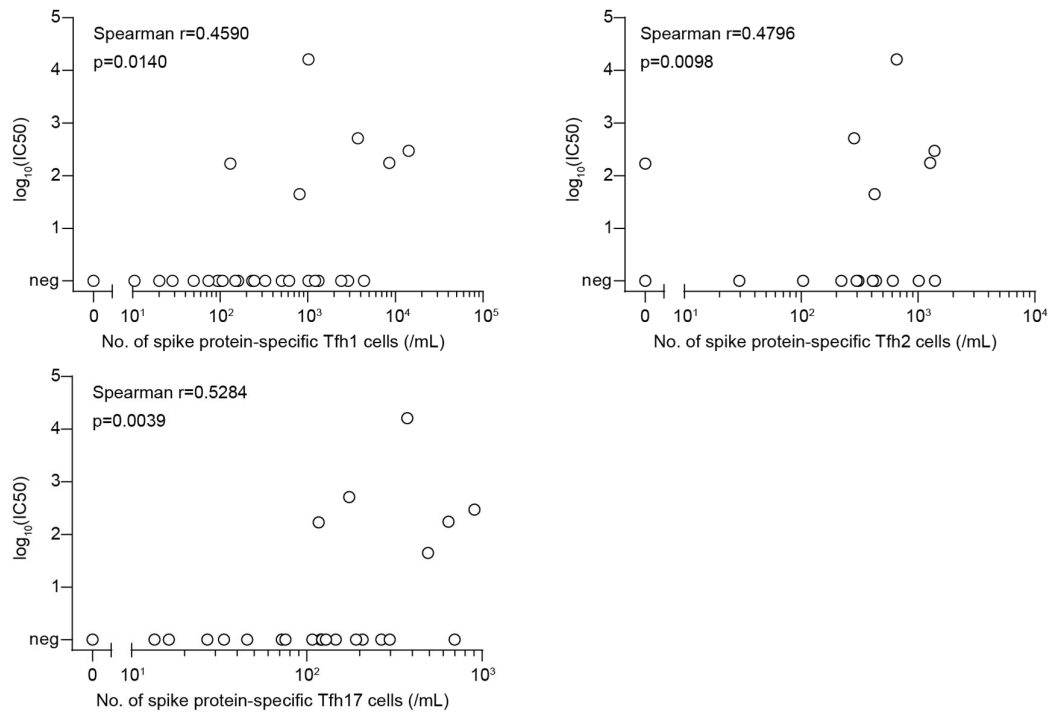
**The PDF file includes:**

Fig. S1  
Table S1

**Other Supplementary Material for this manuscript includes the following:**

MDAR Reproducibility Checklist  
Data file S1

## Supplementary materials



**Fig. S1.** Correlations between Tfh subpopulations and the viral neutralization capacity of the serum. The correlations between the number of spike protein-specific Tfh1, Tfh2, or Tfh17 cells and the viral neutralization capacity of the serum are shown. The results of Spearman correlation test are shown on the graphs. Tfh, T follicular helper. Neg indicates absence of neutralizing antibodies.

**Table S1. Clinical characteristics of epidemiological and COVATRHS cohorts.**

n (%) or median [IQR]	Epidemiological cohort		p <sup>1</sup>	COVATRHS cohort		p <sup>2</sup>	Inf p <sup>3</sup>	Vac p <sup>4</sup>
	Infected n= 137	Vaccinated n= 736		Infected n=21	Vaccinated n=29			
<b>Age (y)</b>	59.9 [49.7-68.9]	57.7 [49.1-67.3]	0.219	54.9 [36.9-60.4]	56.4 [43.4-69.6]	0.314	0.057	0.819
<b>Male</b>	88 (64)	439 (60)	0.361	12 (57)	18 (62)	0.726	0.530	0.794
<b>BMI (kg/m<sup>2</sup>)</b>	26.0 [23.0-31.0]	26.0 [22.6-30.0]	0.404	25.0 [22.5-30.0]	24.2 [23.4-27.5]	0.603	0.543	0.259
<b>Time since transplantation (y)</b>	6.18 [2.14-12.6]	6.41 [2.94-13.1]	0.176	2.0 [1.35-7.53]	7.04 [2.19-16.2]	<b>0.017</b>	<b>0.027</b>	0.846
<b>Donor type</b>			0.652			0.08	0.140	0.544
Deceased	106 (77)	602 (82)		13 (62)	25 (86)			
Living	27 (20)	134 (18)		7 (33)	4 (14)			
NA	4 (3)	0		1 (5)	0			
<b>Comorbidities</b>								
Cardiovascular disease	48 (35)	226 (31)	0.367	4 (19)	21 (72)	<b>&lt;0.001</b>	0.146	<b>&lt;0.001</b>
Diabetes	58 (42)	263 (36)	0.169	7 (33)	3 (10)	<b>0.045</b>	0.435	<b>0.005</b>
<b>Induction</b>			<b>&lt;0.001</b>			0.087	0.797	0.743
Anti-thymocyte globulins	47 (34)	418 (57)		8 (38)	17 (59)			
Basiliximab	80 (58)	254 (34)		12 (57)	9 (31)			
No induction	7 (5)	38 (5)		0	0			
NA	3 (2)	26 (4)		1 (5)	1 (3)			
<b>Immunosuppressive drugs</b>								
CNI	126 (92)	659 (90)	0.385	19 (90)	28 (97)	0.372	0.817	0.221
MMF/MPA	109 (80)	582 (80)	0.898	19 (90)	22 (76)	0.184	0.235	0.677
Steroids	89 (65)	493 (67)	0.645	14 (67)	19 (66)	0.932	0.879	0.869
imTOR	22 (16)	126 (17)	0.751	1 (5)	3 (10)	0.472	0.172	0.336
Belatacept	3 (2)	24 (3)	0.506	2 (10)	1 (3)	0.372	0.074	0.956
Imurel	3 (2)	16 (2)	0.991	0	0	NA	NA	NA

Qualitative variables were compared using a Chi-square test, quantitative variables were compared using a Mann Whitney test.

Significant p-values are in bold. p<sup>1</sup> was the comparison between infected (Inf) and vaccinated (Vac) patients from the epidemiological

cohort;  $p^2$  was the comparison between infected and vaccinated patients from the biological cohort;  $p^3$  was the comparison between infected patients from the epidemiological and biological cohorts;  $p^4$  was the comparison between vaccinated patients from the epidemiological and biological cohorts. IQR, interquartile range; BMI, body mass index; SD, standard deviation; y, years; NA, not available; CNI, calcineurin inhibitor; MMF/MPA, mycophenolate mofetil/mycophenolic acid; imTOR, inhibitors of the mechanistic target of rapamycin.