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Gabrielle Lemire
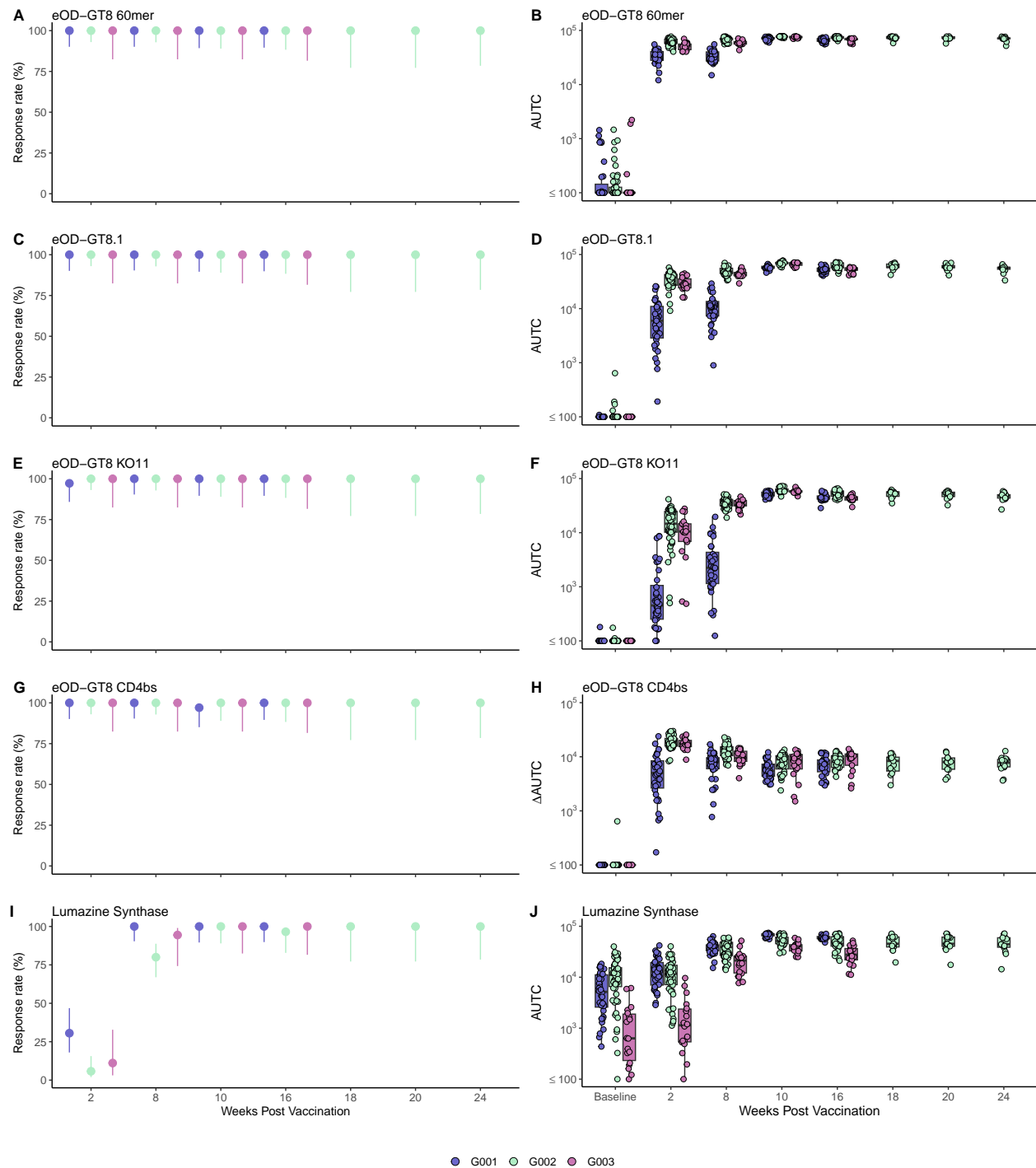
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Figure 1: Fig S8. Serum IgG antibody binding responses to eOD-GT8 60mer and related probes, for recipients of eOD-GT8 60mer mRNA-LNP in G002 and G003 or eOD-GT8 60mer protein and AS01B in G001.

Table 1: Table S31. Serum IgG binding antibody response rates to eOD-GT8 60mer and related antigens, for recipients of eOD-GT8 60mer mRNA-LNP in G002 and G003 or eOD-GT8 60mer protein and AS01B in G001.

Antigen	Week	Comparison	Sample Sizes	Response Rate (CI)	P-value	FDR
eOD-GT8 60mer	2	G001 vs. G002	35 vs. 51	35/35 = 100.0% (90.1%, 100.0%) vs. 51/51 = 100.0% (93.0%, 100.0%)	1.0000	1.0000
		G001 vs. G003	35 vs. 18	35/35 = 100.0% (90.1%, 100.0%) vs. 18/18 = 100.0% (82.4%, 100.0%)	1.0000	1.0000
		G002 vs. G003	51 vs. 18	51/51 = 100.0% (93.0%, 100.0%) vs. 18/18 = 100.0% (82.4%, 100.0%)	1.0000	1.0000
	8	G001 vs. G002	35 vs. 50	35/35 = 100.0% (90.1%, 100.0%) vs. 50/50 = 100.0% (92.9%, 100.0%)	1.0000	1.0000
		G001 vs. G003	35 vs. 18	35/35 = 100.0% (90.1%, 100.0%) vs. 18/18 = 100.0% (82.4%, 100.0%)	1.0000	1.0000
		G002 vs. G003	50 vs. 18	50/50 = 100.0% (92.9%, 100.0%) vs. 18/18 = 100.0% (82.4%, 100.0%)	1.0000	1.0000
	10	G001 vs. G002	32 vs. 31	32/32 = 100.0% (89.3%, 100.0%) vs. 31/31 = 100.0% (89.0%, 100.0%)	1.0000	1.0000
		G001 vs. G003	32 vs. 18	32/32 = 100.0% (89.3%, 100.0%) vs. 18/18 = 100.0% (82.4%, 100.0%)	1.0000	1.0000
		G002 vs. G003	31 vs. 18	31/31 = 100.0% (89.0%, 100.0%) vs. 18/18 = 100.0% (82.4%, 100.0%)	1.0000	1.0000
	16	G001 vs. G002	33 vs. 29	33/33 = 100.0% (89.6%, 100.0%) vs. 29/29 = 100.0% (88.3%, 100.0%)	1.0000	1.0000
		G001 vs. G003	33 vs. 17	33/33 = 100.0% (89.6%, 100.0%) vs. 17/17 = 100.0% (81.6%, 100.0%)	1.0000	1.0000
eOD-GT8.1		G002 vs. G003	29 vs. 17	29/29 = 100.0% (88.3%, 100.0%) vs. 17/17 = 100.0% (81.6%, 100.0%)	1.0000	1.0000
	2	G001 vs. G002	35 vs. 51	35/35 = 100.0% (90.1%, 100.0%) vs. 51/51 = 100.0% (93.0%, 100.0%)	1.0000	1.0000
		G001 vs. G003	35 vs. 18	35/35 = 100.0% (90.1%, 100.0%) vs. 18/18 = 100.0% (82.4%, 100.0%)	1.0000	1.0000
		G002 vs. G003	51 vs. 18	51/51 = 100.0% (93.0%, 100.0%) vs. 18/18 = 100.0% (82.4%, 100.0%)	1.0000	1.0000
	8	G001 vs. G002	36 vs. 50	36/36 = 100.0% (90.4%, 100.0%) vs. 50/50 = 100.0% (92.9%, 100.0%)	1.0000	1.0000
		G001 vs. G003	36 vs. 18	36/36 = 100.0% (90.4%, 100.0%) vs. 18/18 = 100.0% (82.4%, 100.0%)	1.0000	1.0000
		G002 vs. G003	50 vs. 18	50/50 = 100.0% (92.9%, 100.0%) vs. 18/18 = 100.0% (82.4%, 100.0%)	1.0000	1.0000
	10	G001 vs. G002	33 vs. 31	33/33 = 100.0% (89.6%, 100.0%) vs. 31/31 = 100.0% (89.0%, 100.0%)	1.0000	1.0000
		G001 vs. G003	33 vs. 18	33/33 = 100.0% (89.6%, 100.0%) vs. 18/18 = 100.0% (82.4%, 100.0%)	1.0000	1.0000
		G002 vs. G003	31 vs. 18	31/31 = 100.0% (89.0%, 100.0%) vs. 18/18 = 100.0% (82.4%, 100.0%)	1.0000	1.0000
	16	G001 vs. G002	34 vs. 29	34/34 = 100.0% (89.8%, 100.0%) vs. 29/29 = 100.0% (88.3%, 100.0%)	1.0000	1.0000
		G001 vs. G003	34 vs. 17	34/34 = 100.0% (89.8%, 100.0%) vs. 17/17 = 100.0% (81.6%, 100.0%)	1.0000	1.0000
eOD-GT8 KO11		G002 vs. G003	29 vs. 17	29/29 = 100.0% (88.3%, 100.0%) vs. 17/17 = 100.0% (81.6%, 100.0%)	1.0000	1.0000
	2	G001 vs. G002	36 vs. 52	35/36 = 97.2% (85.8%, 99.5%) vs. 52/52 = 100.0% (93.1%, 100.0%)	0.2583	1.0000
		G001 vs. G003	36 vs. 18	35/36 = 97.2% (85.8%, 99.5%) vs. 18/18 = 100.0% (82.4%, 100.0%)	0.5946	1.0000
		G002 vs. G003	52 vs. 18	52/52 = 100.0% (93.1%, 100.0%) vs. 18/18 = 100.0% (82.4%, 100.0%)	1.0000	1.0000
	8	G001 vs. G002	36 vs. 50	36/36 = 100.0% (90.4%, 100.0%) vs. 50/50 = 100.0% (92.9%, 100.0%)	1.0000	1.0000
		G001 vs. G003	36 vs. 18	36/36 = 100.0% (90.4%, 100.0%) vs. 18/18 = 100.0% (82.4%, 100.0%)	1.0000	1.0000
		G002 vs. G003	50 vs. 18	50/50 = 100.0% (92.9%, 100.0%) vs. 18/18 = 100.0% (82.4%, 100.0%)	1.0000	1.0000
	10	G001 vs. G002	33 vs. 31	33/33 = 100.0% (89.6%, 100.0%) vs. 31/31 = 100.0% (89.0%, 100.0%)	1.0000	1.0000
		G001 vs. G003	33 vs. 18	33/33 = 100.0% (89.6%, 100.0%) vs. 18/18 = 100.0% (82.4%, 100.0%)	1.0000	1.0000
		G002 vs. G003	31 vs. 18	31/31 = 100.0% (89.0%, 100.0%) vs. 18/18 = 100.0% (82.4%, 100.0%)	1.0000	1.0000
	16	G001 vs. G002	33 vs. 29	33/33 = 100.0% (89.6%, 100.0%) vs. 29/29 = 100.0% (88.3%, 100.0%)	1.0000	1.0000
		G001 vs. G003	33 vs. 17	33/33 = 100.0% (89.6%, 100.0%) vs. 17/17 = 100.0% (81.6%, 100.0%)	1.0000	1.0000
eOD-GT8 CD4bs		G002 vs. G003	29 vs. 17	29/29 = 100.0% (88.3%, 100.0%) vs. 17/17 = 100.0% (81.6%, 100.0%)	1.0000	1.0000
	2	G001 vs. G002	35 vs. 51	35/35 = 100.0% (90.1%, 100.0%) vs. 51/51 = 100.0% (93.0%, 100.0%)	1.0000	1.0000
	8	G001 vs. G002	36 vs. 50	36/36 = 100.0% (90.4%, 100.0%) vs. 50/50 = 100.0% (92.9%, 100.0%)	1.0000	1.0000
	10	G001 vs. G002	34 vs. 31	33/34 = 97.1% (85.1%, 99.5%) vs. 31/31 = 100.0% (89.0%, 100.0%)	0.5146	1.0000
Lumazine Synthase	16	G001 vs. G002	33 vs. 29	33/33 = 100.0% (89.6%, 100.0%) vs. 29/29 = 100.0% (88.3%, 100.0%)	1.0000	1.0000
	2	G001 vs. G002	36 vs. 52	11/36 = 30.6% (18.0%, 46.9%) vs. 3/52 = 5.8% (2.0%, 15.6%)	==0.0018==	==0.0070==
	8	G001 vs. G002	36 vs. 50	36/36 = 100.0% (90.4%, 100.0%) vs. 40/50 = 80.0% (67.0%, 88.8%)	==0.0045==	==0.0091==
	10	G001 vs. G002	33 vs. 31	33/33 = 100.0% (89.6%, 100.0%) vs. 31/31 = 100.0% (89.0%, 100.0%)	1.0000	1.0000
	16	G001 vs. G002	34 vs. 29	34/34 = 100.0% (89.8%, 100.0%) vs. 28/29 = 96.6% (82.8%, 99.4%)	0.3527	0.4703

Table 2: Table S32. Serum IgG binding antibody response magnitudes to eOD-GT8 60mer and related antigens, for recipients of eOD-GT8 60mer mRNA-LNP in G002 and G003 or eOD-GT8 60mer protein and AS01B in G001.

Antigen	Week	Comparison	Sample Sizes	Median (Min, Max)	P-value	FDR
	Baseline	G001 vs. G002	35 vs. 56	55 [1, 1439] vs. 70 [2, 1463]	0.7935	0.7935
		G001 vs. G003	35 vs. 18	55 [1, 1439] vs. 36 [2, 2219]	0.4176	0.4818
		G002 vs. G003	56 vs. 18	70 [2, 1463] vs. 36 [2, 2219]	0.2066	0.2582
	2	G001 vs. G002	35 vs. 51	33074 [12028, 55151] vs. 60220 [40485, 76887]	<0.0001	<0.0001
		G001 vs. G003	35 vs. 18	33074 [12028, 55151] vs. 53094 [40463, 69918]	<0.0001	<0.0001
		G002 vs. G003	51 vs. 18	60220 [40485, 76887] vs. 53094 [40463, 69918]	<0.0001	<0.0001
	8	G001 vs. G002	35 vs. 50	31879 [14890, 55328] vs. 70222 [55632, 76887]	<0.0001	<0.0001
		G001 vs. G003	35 vs. 18	31879 [14890, 55328] vs. 58236 [43294, 70852]	<0.0001	<0.0001
		G002 vs. G003	50 vs. 18	70222 [55632, 76887] vs. 58236 [43294, 70852]	<0.0001	<0.0001
	10	G001 vs. G002	33 vs. 31	70910 [59742, 76603] vs. 76887 [72289, 76887]	<0.0001	<0.0001
		G001 vs. G003	33 vs. 18	70910 [59742, 76603] vs. 75648 [70320, 76887]	<0.0001	0.0001
		G002 vs. G003	31 vs. 18	76887 [72289, 76887] vs. 75648 [70320, 76887]	0.0002	0.0002
	16	G001 vs. G002	33 vs. 29	65888 [55386, 74737] vs. 73674 [63683, 76887]	<0.0001	<0.0001
eOD-GT8.1		G001 vs. G003	33 vs. 17	65888 [55386, 74737] vs. 69765 [55856, 71624]	0.5700	0.6107
		G002 vs. G003	29 vs. 17	73674 [63683, 76887] vs. 69765 [55856, 71624]	<0.0001	<0.0001
	Baseline	G001 vs. G002	23 vs. 54	4 [0, 109] vs. 15 [1, 641]	0.0024	0.0036
		G001 vs. G003	23 vs. 17	4 [0, 109] vs. 6 [0, 85]	0.6213	0.6657
		G002 vs. G003	54 vs. 17	15 [1, 641] vs. 6 [0, 85]	0.2477	0.2858
	2	G001 vs. G002	35 vs. 51	5970 [192, 25927] vs. 37428 [9111, 57271]	<0.0001	<0.0001
		G001 vs. G003	35 vs. 18	5970 [192, 25927] vs. 28139 [16053, 44522]	<0.0001	<0.0001
		G002 vs. G003	51 vs. 18	37428 [9111, 57271] vs. 28139 [16053, 44522]	0.0211	0.0264
	8	G001 vs. G002	36 vs. 50	10861 [895, 29079] vs. 48362 [33202, 69956]	<0.0001	<0.0001
		G001 vs. G003	36 vs. 18	10861 [895, 29079] vs. 42010 [29234, 57996]	<0.0001	<0.0001
		G002 vs. G003	50 vs. 18	48362 [33202, 69956] vs. 42010 [29234, 57996]	0.0017	0.0029
	10	G001 vs. G002	34 vs. 31	57449 [46180, 66789] vs. 70514 [57785, 76887]	<0.0001	<0.0001
		G001 vs. G003	34 vs. 18	57449 [46180, 66789] vs. 69631 [56582, 71365]	<0.0001	<0.0001
		G002 vs. G003	31 vs. 18	70514 [57785, 76887] vs. 69631 [56582, 71365]	0.0045	0.0061
	16	G001 vs. G002	34 vs. 29	53151 [40466, 65311] vs. 59620 [44470, 72234]	<0.0001	<0.0001
eOD-GT8 KO11		G001 vs. G003	34 vs. 17	53151 [40466, 65311] vs. 55038 [41237, 58590]	0.7144	0.7144
		G002 vs. G003	29 vs. 17	59620 [44470, 72234] vs. 55038 [41237, 58590]	<0.0001	<0.0001
	Baseline	G001 vs. G002	21 vs. 53	10 [0, 180] vs. 8 [0, 175]	0.5222	0.6025
		G001 vs. G003	21 vs. 17	10 [0, 180] vs. 8 [0, 77]	0.9826	0.9826
		G002 vs. G003	53 vs. 17	8 [0, 175] vs. 8 [0, 77]	0.6616	0.7088
	2	G001 vs. G002	36 vs. 52	452 [20, 8661] vs. 14665 [500, 41546]	<0.0001	<0.0001
		G001 vs. G003	36 vs. 18	452 [20, 8661] vs. 10518 [486, 27750]	<0.0001	<0.0001
		G002 vs. G003	52 vs. 18	14665 [500, 41546] vs. 10518 [486, 27750]	0.0684	0.1025
	8	G001 vs. G002	36 vs. 50	2246 [124, 19646] vs. 36242 [18947, 51166]	<0.0001	<0.0001
		G001 vs. G003	36 vs. 18	2246 [124, 19646] vs. 32705 [21696, 46402]	<0.0001	<0.0001
		G002 vs. G003	50 vs. 18	36242 [18947, 51166] vs. 32705 [21696, 46402]	0.1681	0.2292
	10	G001 vs. G002	34 vs. 31	51781 [40832, 59930] vs. 60540 [46719, 72721]	<0.0001	<0.0001
		G001 vs. G003	34 vs. 18	51781 [40832, 59930] vs. 58449 [47118, 69864]	<0.0001	<0.0001
		G002 vs. G003	31 vs. 18	60540 [46719, 72721] vs. 58449 [47118, 69864]	0.0344	0.0573
	16	G001 vs. G002	33 vs. 29	42841 [28520, 59107] vs. 53092 [40201, 65558]	<0.0001	<0.0001
eOD-GT8 CD4bs		G001 vs. G003	33 vs. 17	42841 [28520, 59107] vs. 44003 [29762, 53112]	0.5030	0.6025
		G002 vs. G003	29 vs. 17	53092 [40201, 65558] vs. 44003 [29762, 53112]	<0.0001	<0.0001
	Baseline	G001 vs. G002	7 vs. 60	0 [0, 3] vs. 4 [1, 641]	0.0061	0.0153
	2	G001 vs. G002	35 vs. 51	5028 [171, 23898] vs. 18584 [8270, 29881]	<0.0001	<0.0001
	8	G001 vs. G002	36 vs. 50	7957 [771, 16978] vs. 13594 [6920, 22806]	<0.0001	<0.0001
Lumazine Synthase	10	G001 vs. G002	34 vs. 31	5515 [3062, 12096] vs. 8932 [2387, 13501]	0.0019	0.0058
	16	G001 vs. G002	33 vs. 29	7319 [2952, 11945] vs. 8008 [4269, 12845]	0.1636	0.2231
	Baseline	G001 vs. G002	36 vs. 60	5157 [436, 18311] vs. 11123 [5, 40065]	0.0017	0.0028
	2	G001 vs. G002	36 vs. 52	12902 [2849, 41964] vs. 11654 [1123, 40298]	0.4805	0.6007
	8	G001 vs. G002	36 vs. 50	40569 [15196, 63587] vs. 39054 [13931, 59821]	0.6538	0.6538
	10	G001 vs. G002	34 vs. 31	69907 [55686, 74489] vs. 51332 [29616, 72522]	<0.0001	<0.0001
	16	G001 vs. G002	34 vs. 29	59699 [48011, 70906] vs. 45289 [21074, 72605]	0.0016	0.0028

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Table 3: Table S33. Week 2 (post first vaccination) vs. week 10 (two weeks post second vaccination) comparisons ofserum IgG binding antibody response rates to eOD-GT8 60mer and related antigens, for recipients of eOD-GT8 60mer mRNA-LNP in G002 and G003 or eOD-GT8 60mer protein and AS01B in G001.

Antigen	Study	Comparison	Sample Sizes	Response Rate (CI)	P-value	FDR
eOD-GT8 60mer	G001	2 vs. 10	32 vs. 32	32/32 = 100.0% (89.3%, 100.0%) vs. 32/32 = 100.0% (89.3%, 100.0%)	1.0000	1.0000
	G002	2 vs. 10	31 vs. 31	31/31 = 100.0% (89.0%, 100.0%) vs. 31/31 = 100.0% (89.0%, 100.0%)	1.0000	1.0000
	G003	2 vs. 10	18 vs. 18	18/18 = 100.0% (82.4%, 100.0%) vs. 18/18 = 100.0% (82.4%, 100.0%)	1.0000	1.0000
eOD-GT8.1	G001	2 vs. 10	32 vs. 32	32/32 = 100.0% (89.3%, 100.0%) vs. 32/32 = 100.0% (89.3%, 100.0%)	1.0000	1.0000
	G002	2 vs. 10	30 vs. 30	30/30 = 100.0% (88.6%, 100.0%) vs. 30/30 = 100.0% (88.6%, 100.0%)	1.0000	1.0000
	G003	2 vs. 10	18 vs. 18	18/18 = 100.0% (82.4%, 100.0%) vs. 18/18 = 100.0% (82.4%, 100.0%)	1.0000	1.0000
eOD-GT8 KO11	G001	2 vs. 10	33 vs. 33	32/33 = 97.0% (84.7%, 99.5%) vs. 33/33 = 100.0% (89.6%, 100.0%)	1.0000	1.0000
	G002	2 vs. 10	31 vs. 31	31/31 = 100.0% (89.0%, 100.0%) vs. 31/31 = 100.0% (89.0%, 100.0%)	1.0000	1.0000
	G003	2 vs. 10	18 vs. 18	18/18 = 100.0% (82.4%, 100.0%) vs. 18/18 = 100.0% (82.4%, 100.0%)	1.0000	1.0000
eOD-GT8 CD4bs	G001	2 vs. 10	33 vs. 33	33/33 = 100.0% (89.6%, 100.0%) vs. 32/33 = 97.0% (84.7%, 99.5%)	1.0000	1.0000
	G002	2 vs. 10	30 vs. 30	30/30 = 100.0% (88.6%, 100.0%) vs. 30/30 = 100.0% (88.6%, 100.0%)	1.0000	1.0000
	G003	2 vs. 10	18 vs. 18	18/18 = 100.0% (82.4%, 100.0%) vs. 18/18 = 100.0% (82.4%, 100.0%)	1.0000	1.0000
Lumazine Synthase	G001	2 vs. 10	33 vs. 33	10/33 = 30.3% (17.4%, 47.3%) vs. 33/33 = 100.0% (89.6%, 100.0%)	<0.0001	<0.0001
	G002	2 vs. 10	31 vs. 31	3/31 = 9.7% (3.3%, 24.9%) vs. 31/31 = 100.0% (89.0%, 100.0%)	<0.0001	<0.0001
	G003	2 vs. 10	18 vs. 18	2/18 = 11.1% (3.1%, 32.8%) vs. 18/18 = 100.0% (82.4%, 100.0%)	0.0002	0.0002

Table 4: Table S34. Week 2 (post first vaccination) vs. week 10 (two weeks post second vaccination) comparisons ofserum IgG binding antibody magnitudes to eOD-GT8 60mer and related antigens, for recipients of eOD-GT8 60mer mRNA-LNP in G002 and G003 or eOD-GT8 60mer protein and AS01B in G001.

Antigen	Study	Comparison	Sample Sizes	Median (Min, Max)	P-value	FDR
eOD-GT8 60mer						
	G001	2 vs. 10	33	34527 [12028, 55151] vs. 70910 [59742, 76603]	<0.0001	<0.0001
	G002	2 vs. 10	31	59799 [46263, 76887] vs. 76887 [72289, 76887]	<0.0001	<0.0001
eOD-GT8.1	G003	2 vs. 10	18	53094 [40463, 69918] vs. 75648 [70320, 76887]	<0.0001	<0.0001
	G001	2 vs. 10	33	6691 [192, 25927] vs. 57285 [46180, 66789]	<0.0001	<0.0001
	G002	2 vs. 10	30	36569 [17799, 57271] vs. 70547 [57785, 76887]	<0.0001	<0.0001
eOD-GT8 KO11	G003	2 vs. 10	18	28139 [16053, 44522] vs. 69631 [56582, 71365]	<0.0001	<0.0001
	G001	2 vs. 10	34	490 [20, 8661] vs. 51781 [40832, 59930]	<0.0001	<0.0001
	G002	2 vs. 10	31	13228 [630, 41546] vs. 60540 [46719, 72721]	<0.0001	<0.0001
eOD-GT8 CD4bs	G003	2 vs. 10	18	10518 [486, 27750] vs. 58449 [47118, 69864]	<0.0001	<0.0001
	G001	2 vs. 10	33	5448 [171, 23898] vs. 5688 [3062, 12096]	0.6464	0.6464
	G002	2 vs. 10	30	17850 [14096, 29881] vs. 9036 [2387, 13501]	<0.0001	<0.0001
Lumazine Synthase	G003	2 vs. 10	18	17288 [8833, 25613] vs. 8632 [1502, 13466]	<0.0001	<0.0001
	G001	2 vs. 10	34	13122 [2849, 41964] vs. 69907 [55686, 74489]	<0.0001	<0.0001
	G002	2 vs. 10	31	11404 [1123, 28388] vs. 51332 [29616, 72522]	<0.0001	<0.0001
	G003	2 vs. 10	18	1140 [100, 9636] vs. 40365 [24955, 58982]	<0.0001	<0.0001

Table 5: Table S77. Two sided Wilcox signed rank tests at a .05 significance level for pairwise comparisons of week 8 and week 24 response magnitudes (AUTC and delta AUTC) for pooled G002 groups for antigens eOD-GT8 60mer, eOD-GT8.1, eOD-GT8 KO11, eOD-GT8 CD4bs, and Lumazine Synthase.

Antigen	Study	Comparison	Sample Sizes	Median (Min, Max)	P-value	FDR
eOD-GT8 60mer	G002	8 vs. 24	14	71081 [55632, 75781] vs. 71440 [51904, 76887]	0.5830	0.5830
eOD-GT8.1		8 vs. 24	14	55250 [33202, 61260] vs. 56831 [33283, 65802]	0.0785	0.0785
eOD-GT8 KO11		8 vs. 24	14	39264 [25087, 51166] vs. 48065 [26872, 58461]	0.0001	0.0001
eOD-GT8 CD4bs		8 vs. 24	14	14262 [6920, 22806] vs. 7760 [3640, 12763]	0.0004	0.0004
Lumazine Synthase		8 vs. 24	14	45085 [17684, 59821] vs. 44327 [14347, 71913]	0.0580	0.0580