

Figure S1. Amelioration of the clinical severity of donor mice upon GM-CSF treatment. Donor EAMG mice were treated with GM-CSF or PBS for 10 days. Day 0 corresponds to the initiation of treatment at the time of first booster immunization. A. Donor mice for suppression studies shown in Fig. 5A. \*p < 0.0005 starting at day 10 (n = 32). B. Donor mice for suppression studies shown in Fig. 5C. \*p <0.04 starting at day 16 (n = 20) (also see Table S1).

Figure	Protocols	No. of animals/group in each experiment	No. of experiments	Pooled No. of animals in each group
1A	Donor mice: booster at Day 0, GM-CSF treatment started at Day 0 for 10 d.	10	2	20
4A	Booster at Day 0 and Day 24, AT at Day -1.	5	2	10
5A	Day 0: first AT (at 21d post booster1), second AT at Day 14, booster2 at Day 7.	8	2	16
5C	Booster at Day 0 and Day 30, AT at Day 10 and Day 40.	5	2	10
S1A	Donor mice: same as 1A	16	2	32
S1B	Donor mice: same as 1A	10	2	20

Table1. Summary of treatment protocols and number of animals

Mice were immunized with tAChR and given booster immunization every 24-30d. At least two booster immunizations were given except in donor mice (Fig. 1A, S1A and S1B) which received only one booster.

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Figure		Naïve	PBS/EAMG	GM-CSF/EAMG
	Groups			
	Cells			
1B	Total B cells	121±9.2	125±10	133±7.1
	CD1d <sup>hi</sup> CD5 <sup>+</sup>	1.92±0.5	3.57±0.2*	6.1±0.3**
			p <0.04	p < 0.0001 vs Naïve group;
			-	p < 0.00006 vs PBS/EAMG
	CD19 <sup>+</sup> IL-10 <sup>+</sup>	2.0±0.2	3.6±0.3*	6.4±0.6**
			p <0.006	p < 0.01 vs Naïve;
			-	p < 0.0001 vs. PBS/EAMG
1C	CD19 <sup>+</sup> CD40 <sup>+</sup>		1.6±0.2	3.9±0.6*
				p <0.006 vs PBS/EAMG
	CD19 <sup>+</sup> MHCII <sup>+</sup>		3.1±0.3	4.0±0.5
	CD19 <sup>+</sup> CD23 <sup>+</sup>		8.2±0.9	8.9±1.2
	CD19 <sup>+</sup> IgM <sup>+</sup>		7.3±0.6	7.1±0.4
	$CD19^+ IgD^+$		9.0±0.7	8.8±0.6
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Table2. Absolute number of B cells and subsets  $(1x10^5)$ 

Absolute cell number was determined by using total cellularity, determined by trypan blue dye exclusion and percentage of CD19<sup>+</sup> or B cell subsets. Total splenocytes ranged from 6.4  $x10^7$  to 8.6 $x10^7$ . P values listed were based on comparison with Naïve group unless otherwise specified (n = 6 each).

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Figure	Groups	CTRL	CD1d <sup>hi</sup> CD5 <sup>+</sup>	$CD1d^{hi}CD5^+$
	Cells	(no AT)	(PBS/EAMG)	(GM-CSF/EAMG)
4E	Proliferating CD4 <sup>+</sup>	1.72±0.05	1.38±0.06*	0.79±0.09**
upper panel			p <0.001	p < 0.0001 vs. CTRL;
				p < 0.001 vs. PBS/EAMG
4E	Total CD4 <sup>+</sup>	116±3.1	113±2.5	117±1.7
lower panel	CD25 <sup>+</sup> Foxp3 <sup>+</sup>	8.5±0.6	11.2±0.8*	14.7±0.3**
			p <0.03	p < 0.00001 vs CTRL;
				p < 0.002 vs. PBS/EAMG
5E	Proliferating CD4 <sup>+</sup>	1.25±0.15	0.71±0.06*	0.53±0.05**
upper panel			p <0.002	p <0.00005 vs CTRL;
				p<0.0006 vs. PBS/EAMG
5E	Total CD4 <sup>+</sup>	116±2.2	114±3.1	115±2.4
lower panel	CD25 <sup>+</sup> Foxp3 <sup>+</sup>	10.7±0.2	12.9±0.3*	17.5±1.1**
			p <0.0003	p <0.0002 vs CTRL;
			-	p<0.005 vs. PBS/EAMG

Table3. Absolute number of Tregs and proliferating  $CD4^+T$  cells  $(1x10^5)$ 

Absolute cell number was determined by using total cellularity, determined by trypan blue dye exclusion and percentage of CD4<sup>+</sup> or CD4<sup>+</sup>CD25<sup>+</sup> Foxp3<sup>+</sup> cells. For all T cell proliferation,  $5x10^{5/}$  well of CFSE labeled CD4<sup>+</sup> cells were used. Total splenocytes ranged from  $8.4 \times 10^{7}$  to  $10x10^{7}$ . P values listed were based on comparison with CTRL unless otherwise specified (n = 6 each).