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Figure 1

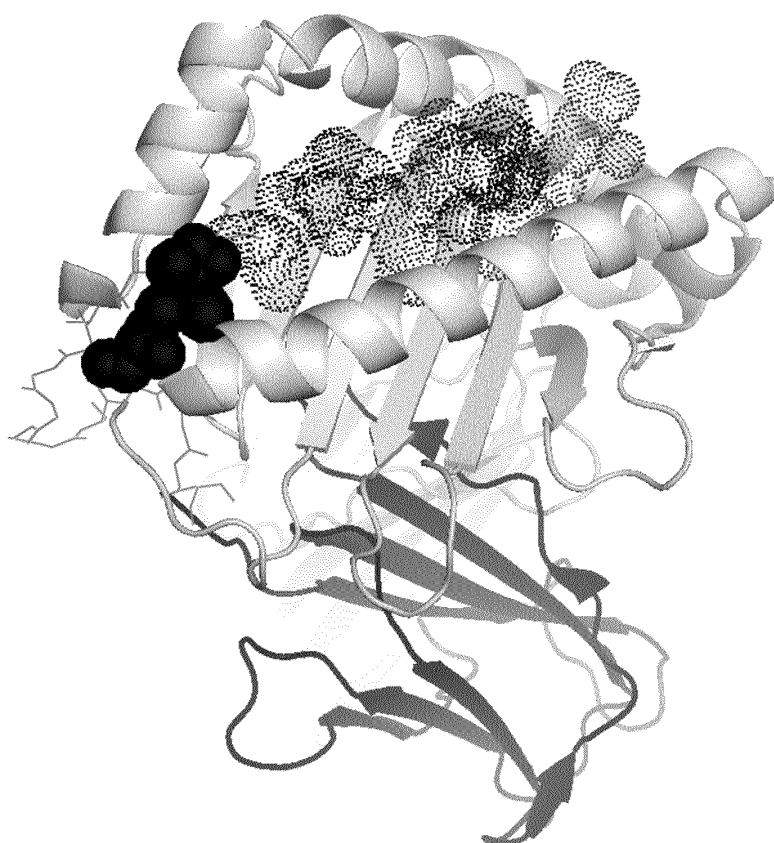
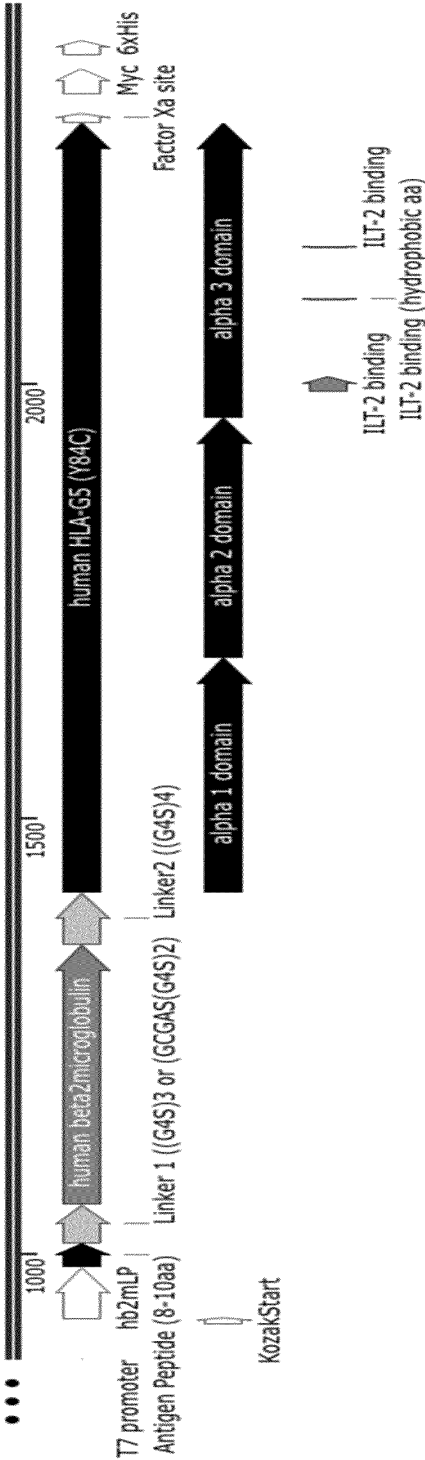


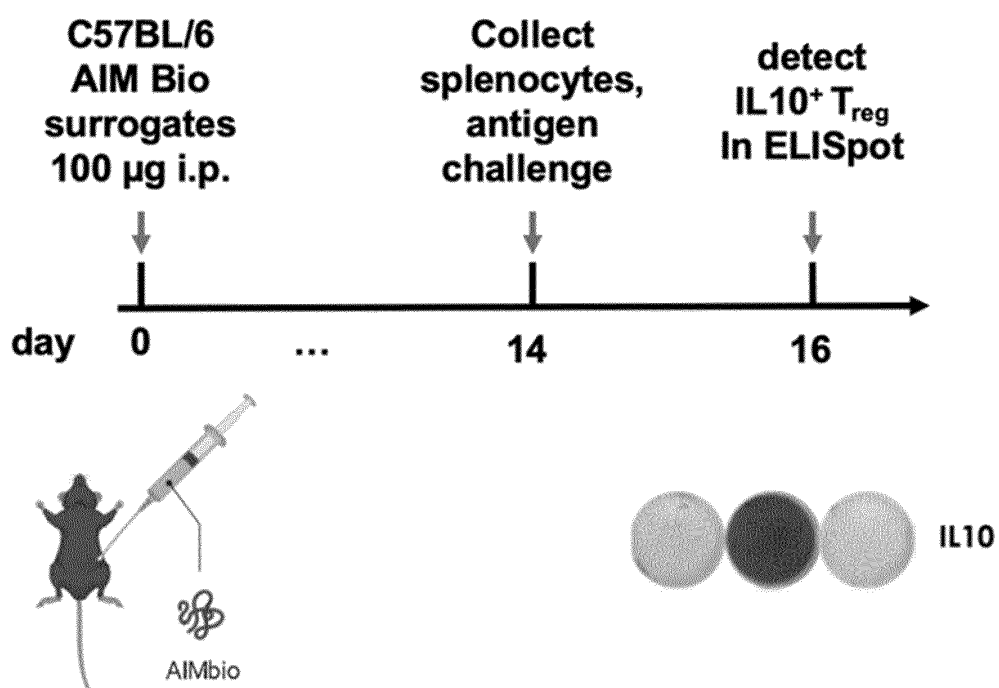
Figure 2



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Figure 3

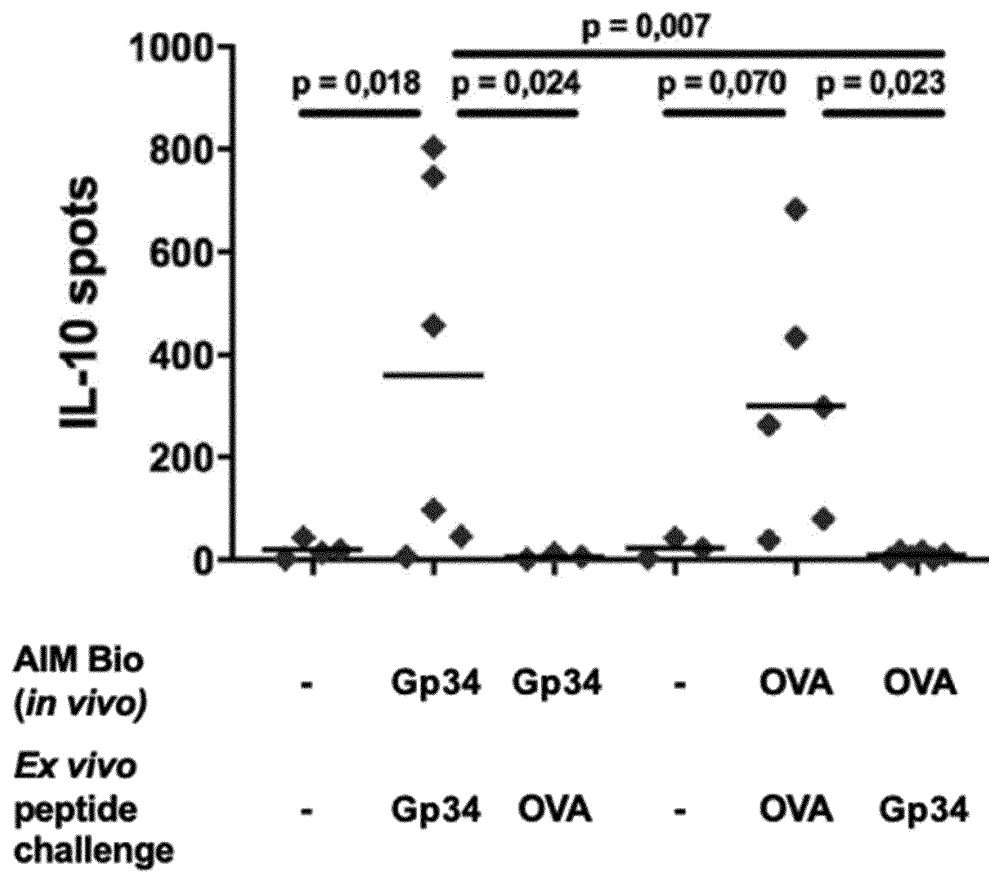
A



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Figure 3, continued

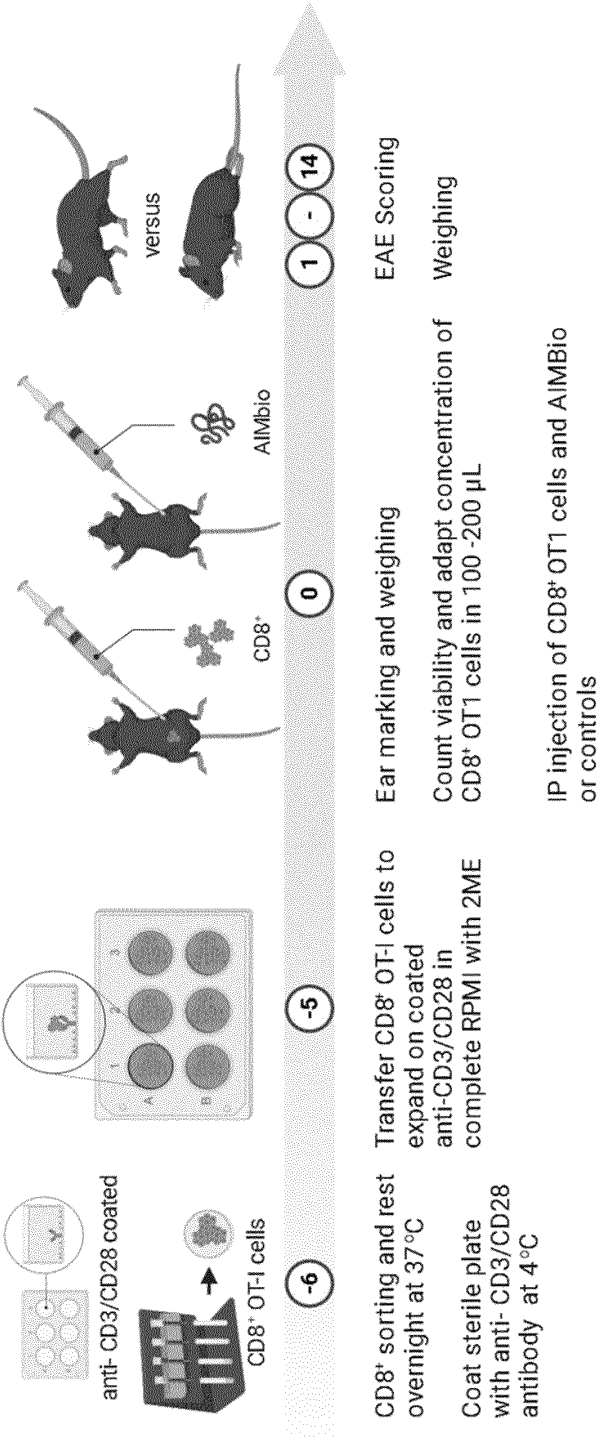
B



Mean indicated by bar

Figure 4

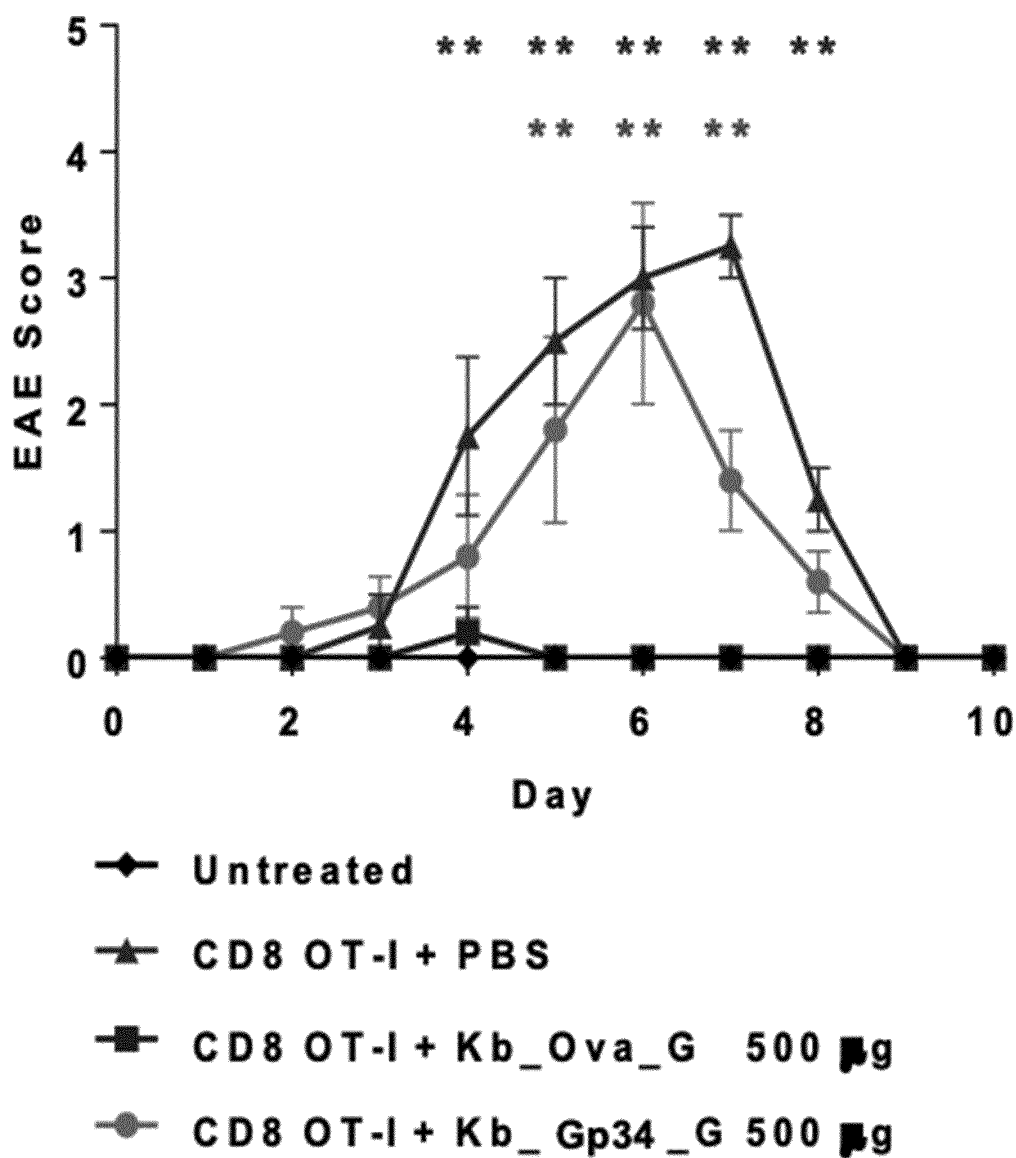
A



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Figure 4, continued

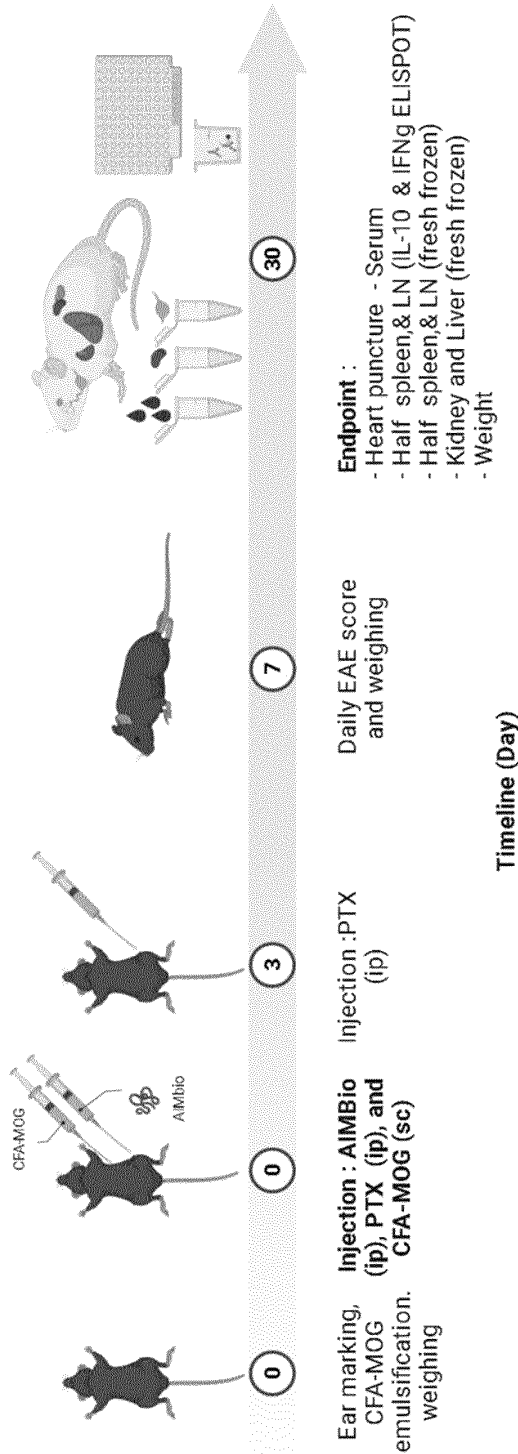
B



Mean and SD indicated. P values: * < 0.05, ** < 0.01

Figure 5

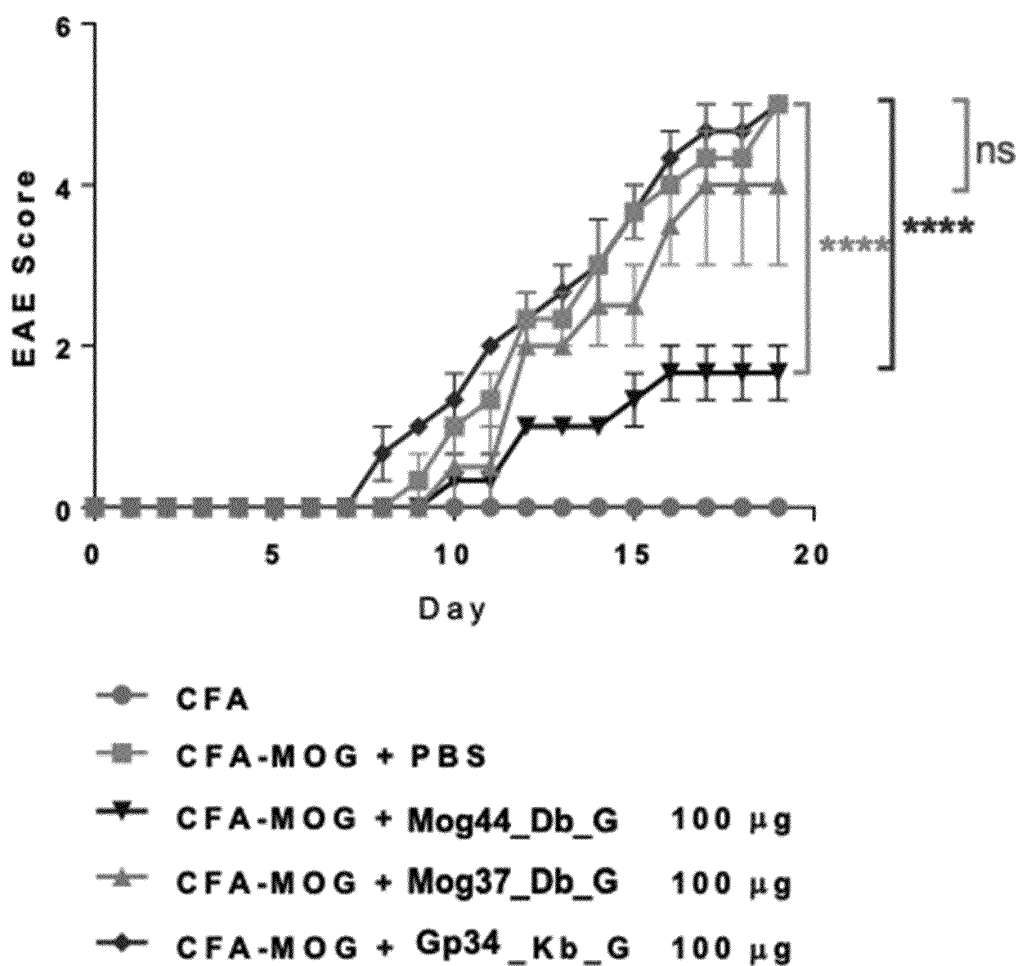
A



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Figure 5, continued

B



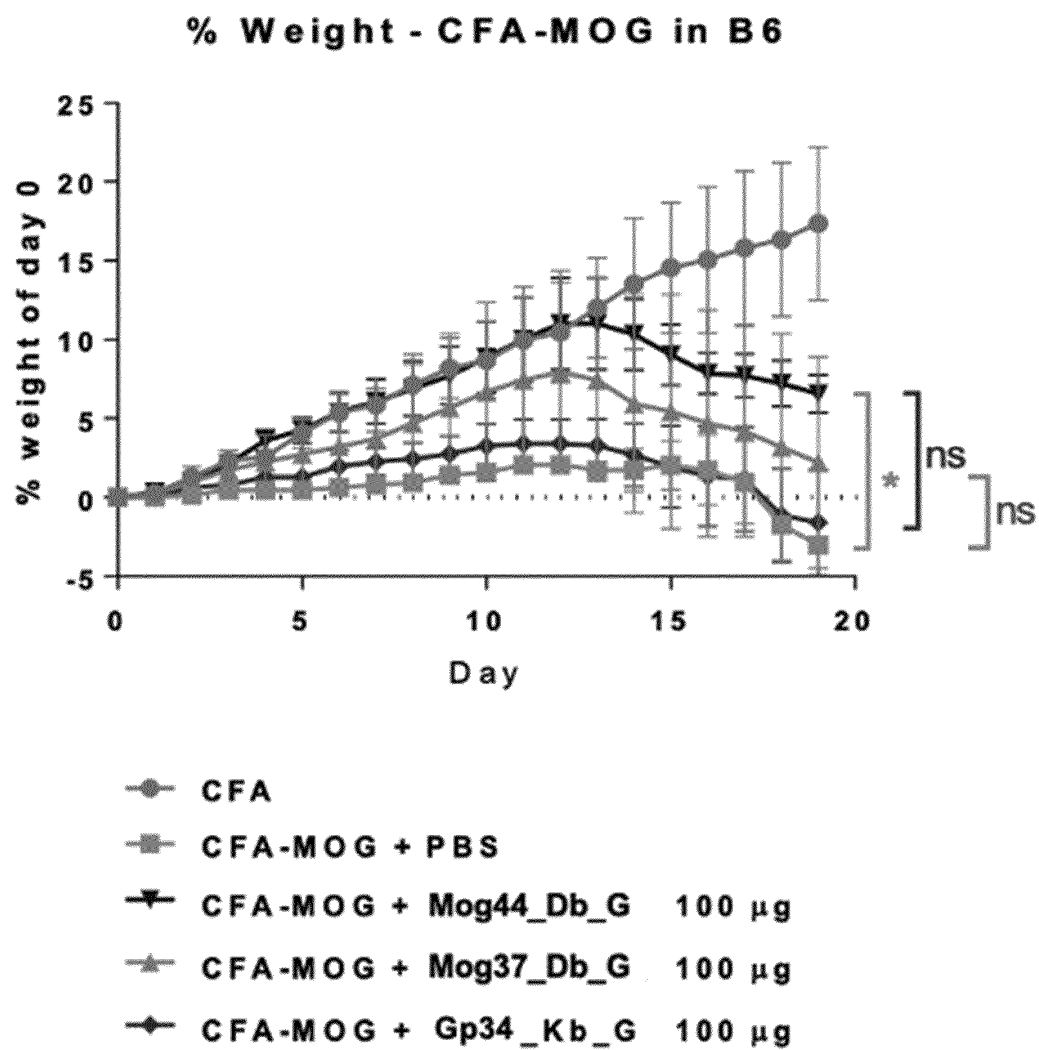
Mean and SD indicated.

P values: * < 0.05, ** < 0.01, *** < 0.001, **** < 0.0001

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Figure 5, continued

C



Mean and SD indicated. P values: * < 0.05

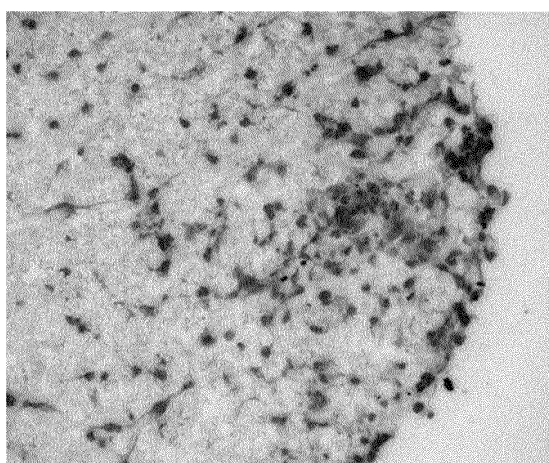
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Figure 6

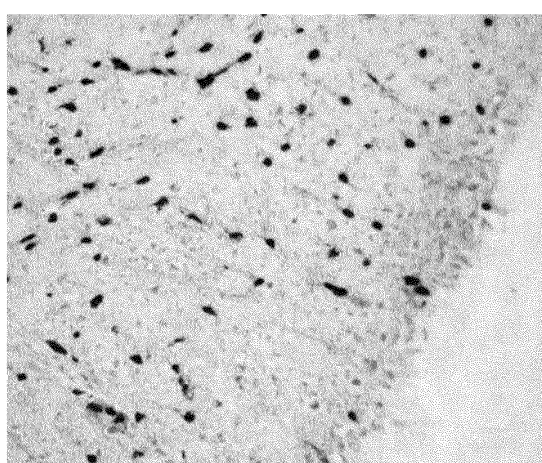
A

Spinal cord (Toluidine)

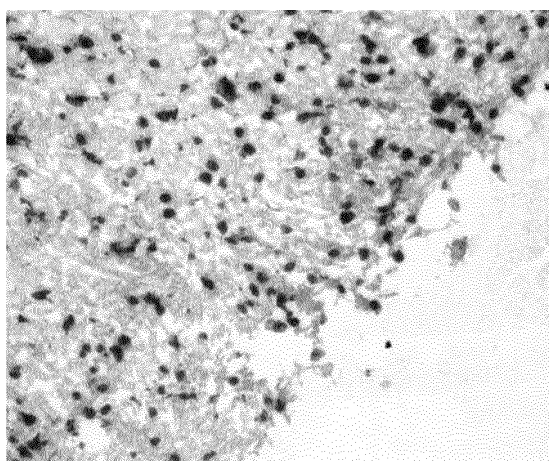
EAE + PBS



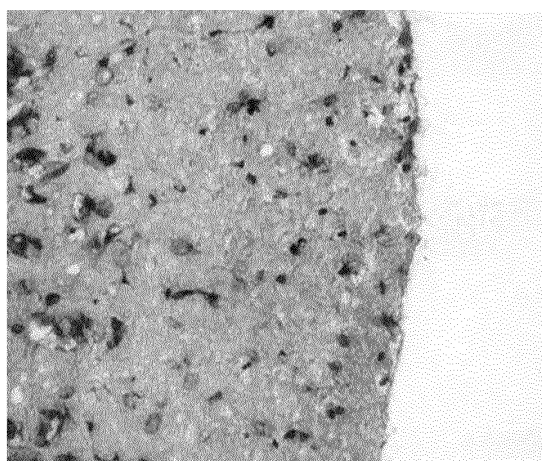
EAE + MOG44_Db_G



EAE + MOG37_Db_G



CFA control



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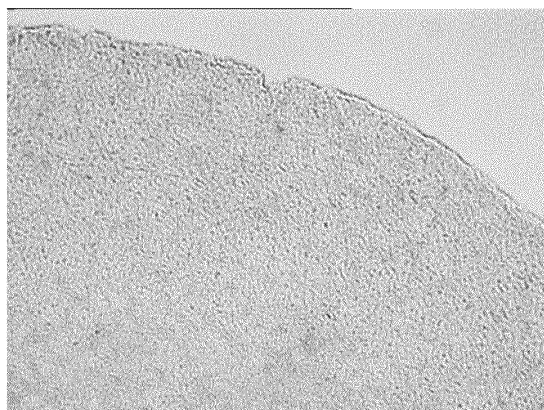
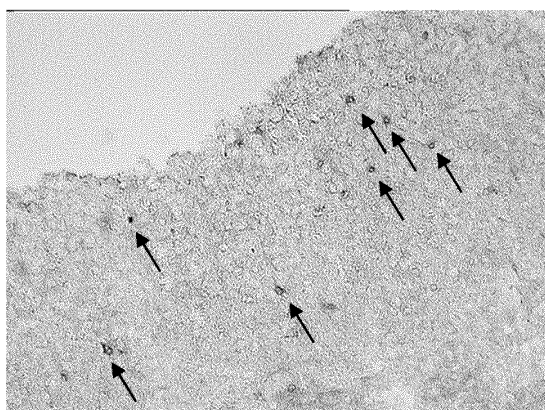
Figure 6, continued

B

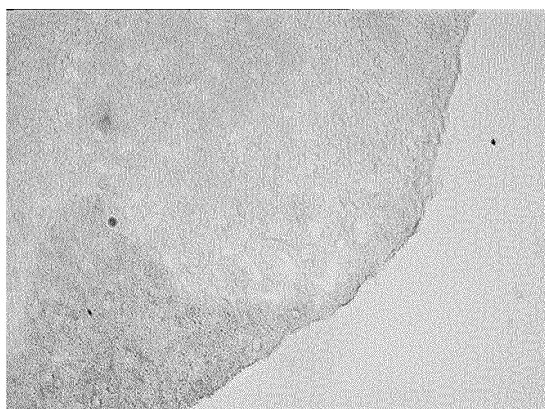
Spinal cord (CD8-DAB)

EAE + PBS

EAE + MOG44_Db_G



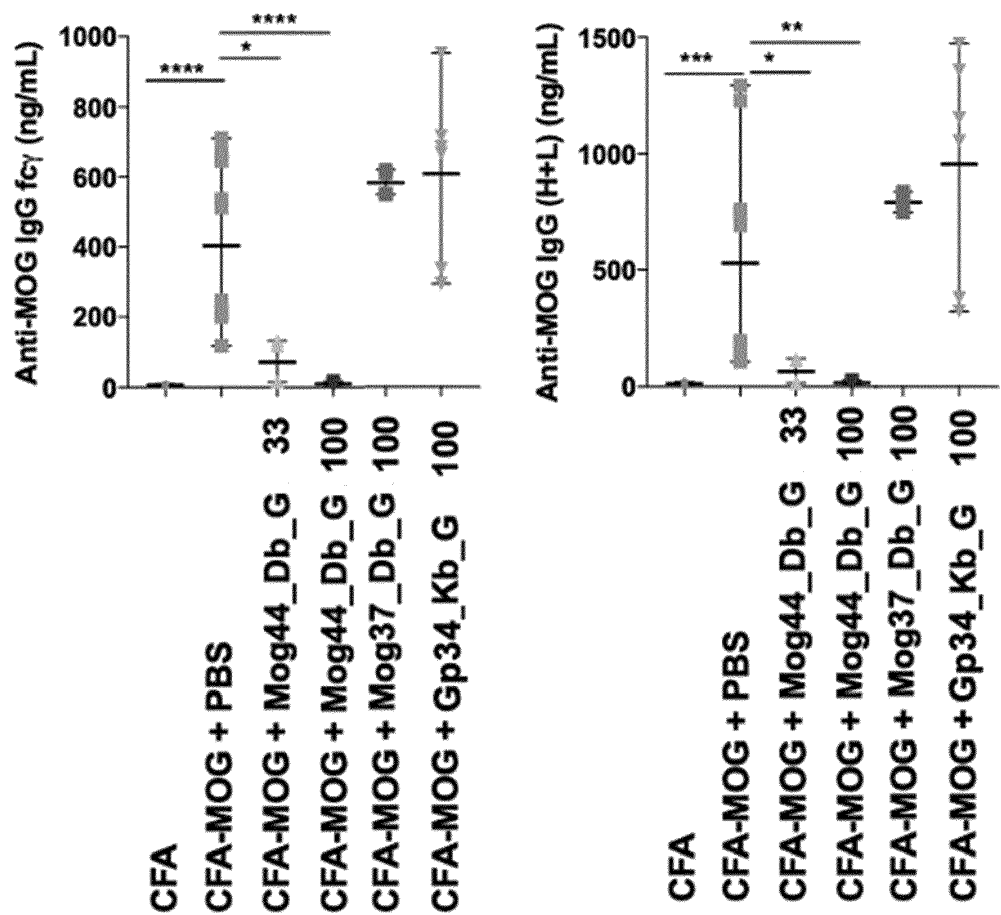
no EAE (CFA) control



↗ = CD8 T cell

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Figure 7



P values: * < 0.05, ** <0.01, *** <0.001, **** <0.0001

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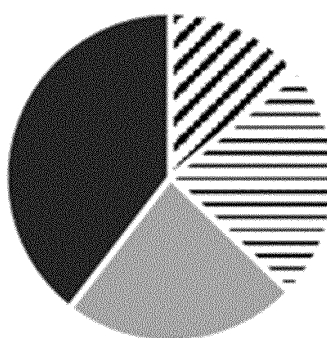
Figure 8

#	Design		Production			Quality control		Prioritization	
	Construct	Peptide Sequence	Yield in SN	Purified	High yield	Coo-massie staining	Western blot	Low density healthy PBMC testing in Elispot	Statistically significant result
1	hAQP4 42-50_HLAG Myc/His Tag	FLAMLIFVL	low	high	low	NA	NA	NA	NA
2	hAQP4 45-53_HLAG Myc/His Tag	MLIFVLLSL	av.	low	NA	NA	NA	NA	NA
3	hAQP4 65-72_HLAG Myc/His Tag	PLPVDML	low	NA	NA	NA	NA	NA	NA
4	hAQP4 71-79_HLAG Myc/His Tag	VLISLCFGL	high	low	NA	NA	NA	NA	NA
5	hAQP4 126-135_HLAG Myc/His Tag	AIIGAGILYL	low	NA	NA	NA	NA	NA	NA
6	hAQP4 127-135_HLAG Myc/His Tag	IIGAGILYL	low	NA	NA	NA	NA	NA	NA
7	hAQP4 45-53_A2G Myc/His Tag	MLIFVLLSL	low	NA	NA	NA	NA	NA	NA
8	hAQP4 65-72_A2G Myc/His Tag	PLPVDML	low	NA	NA	NA	NA	NA	NA
9	hAQP4 71-79_A2G Myc/His Tag	VLISLCFGL	av.	low	NA	NA	NA	NA	NA
10	hAQP4 126-135_A2G Myc/His Tag	AIIGAGILYL	av.	high	low	NA	NA	NA	NA
11	hAQP4 127-135_A2G Myc/His Tag	IIGAGILYL	av.	high	low	NA	NA	NA	NA
12	hAQP4 156-164_A2G Myc/His Tag	AGHGLLVEL	low	NA	NA	NA	NA	NA	NA
13	hAQP4 238-247_A2G Myc/His Tag	IIGAVLAGGL	high	high	high	NA	NA	NA	NA
14	hAQP4 45-HLAG SPOTtag	MLIFVLLSL	low	NA	NA	NA	NA	NA	NA
15	hAQP4 36-43_HLAG SPOTtag	KAVTAEFL	low	NA	NA	NA	NA	NA	NA
16	hAQP4 71-79_HLAG SPOTtag	VLISLCFGL	high	high	low	low	high	NA	NA
17	hAQP4 64-72_HLAG SPOTtag	KPLPVDML	high	high	high	av.	high	high	high
18	hAQP4 71-79_A2G SPOTtag	VLISLCFGL	av.	high	low	High	NA	high	av.
19	hAQP4 127-A2G SPOTtag	IIGAGILYL	av.	high	low	high	NA	high	av.
20	hAQP4 238-A2G SPOTtag	IIGAVLAGGL	high	high	high	high	NA	high	av.
21	hAQP4 137-145G SPOTtag	VTPPSVVGGL	low	NA	NA	NA	NA	NA	NA

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Figure 9

AQP4_64_G_Spt

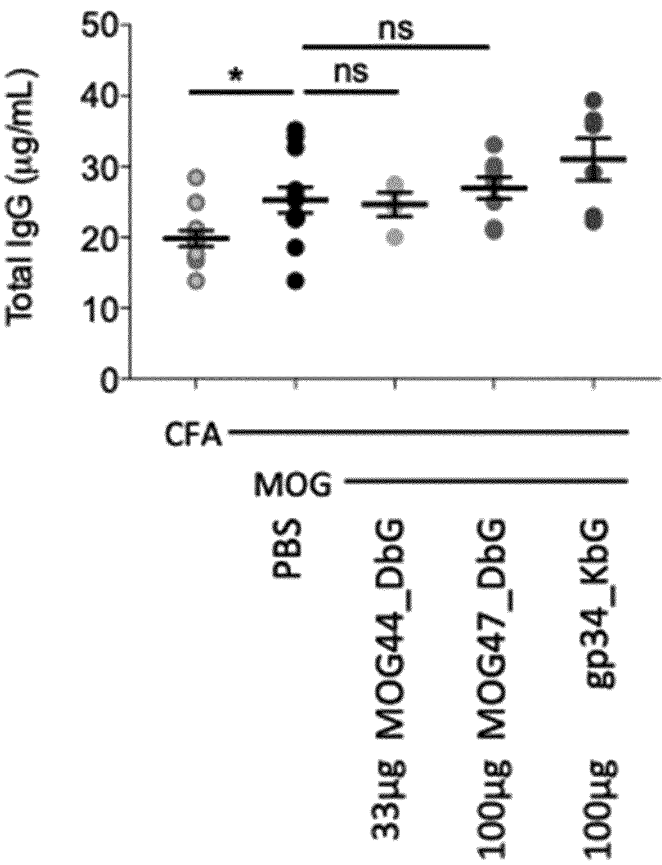


1 = <70% 2 = 70-130%

3 = 130-199% 4 = >=200%

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Figure 10



Mean and SD indicated.

P values: * < 0.05, ** < 0.01, *** < 0.001, **** < 0.0001

Figure 11

stability of purified single-chain MHC Ib molecules

A

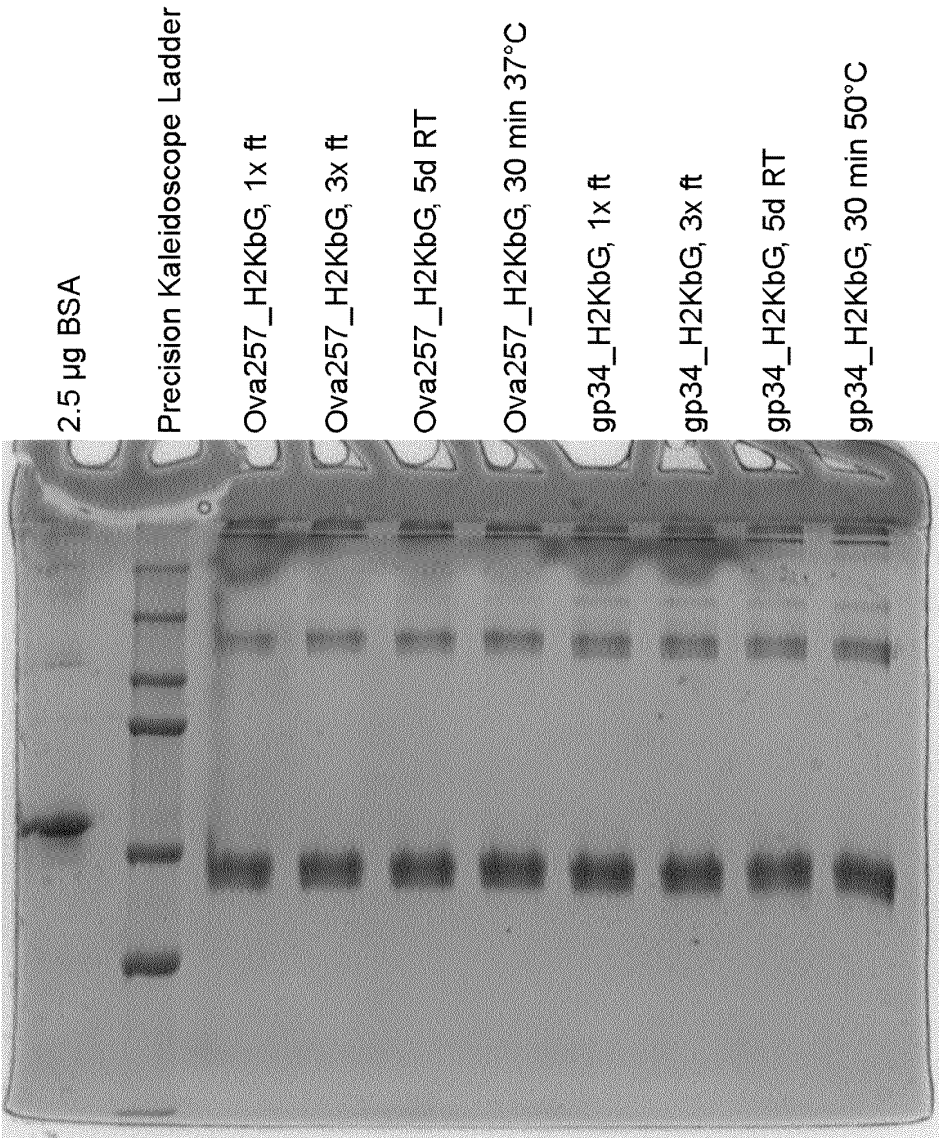
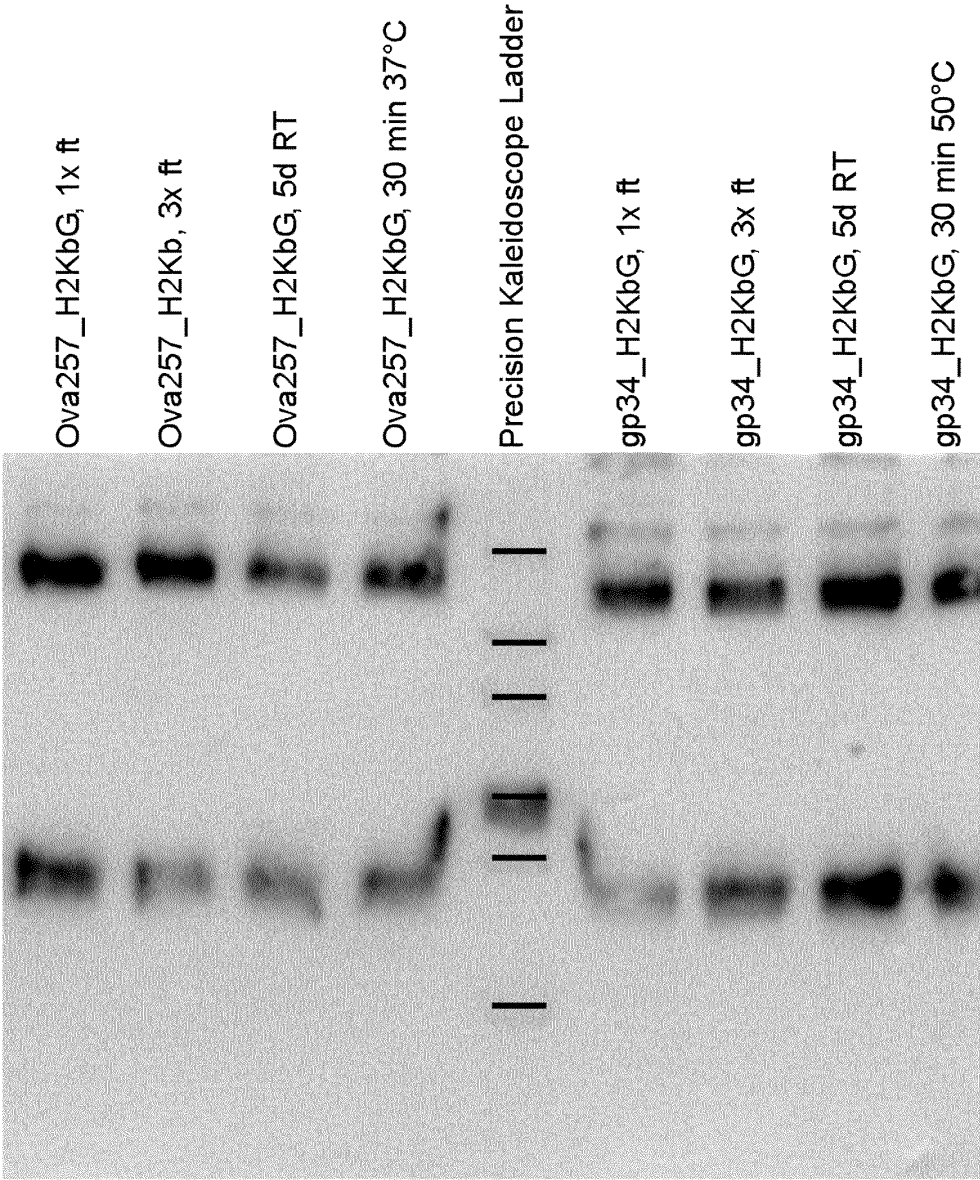


Figure 11, continued

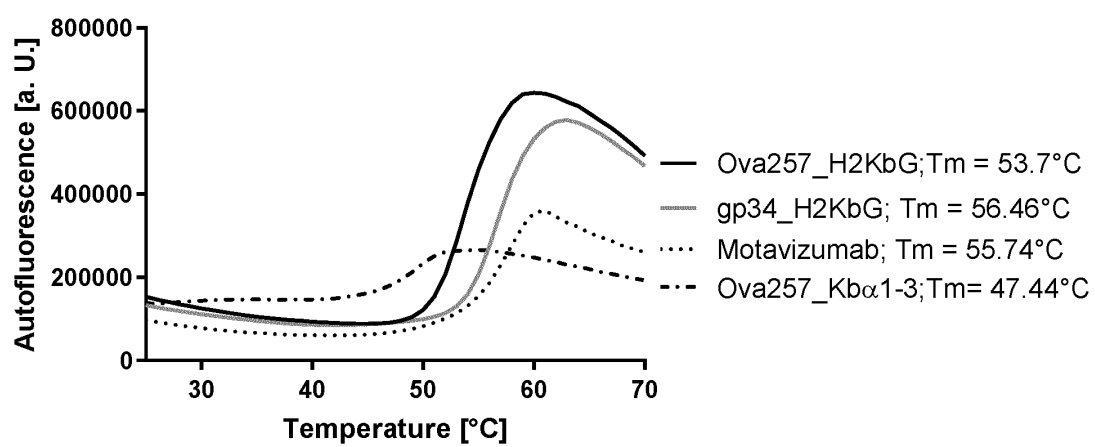
B



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Figure 12

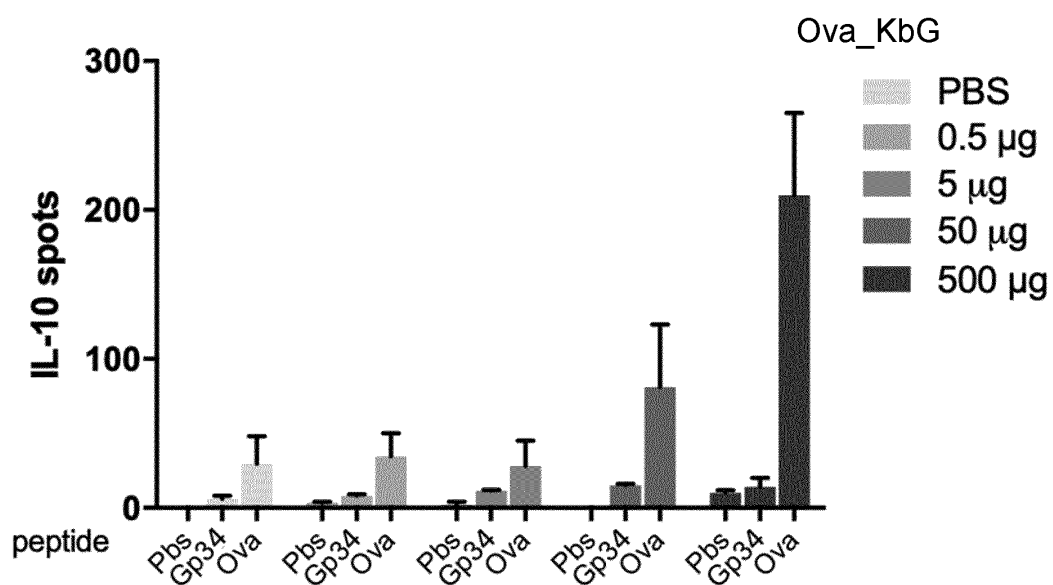
single-chain MHC Ib molecules are thermally stable



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Figure 13

single-chain MHC Ib molecules induce Treg in a dose-dependent manner

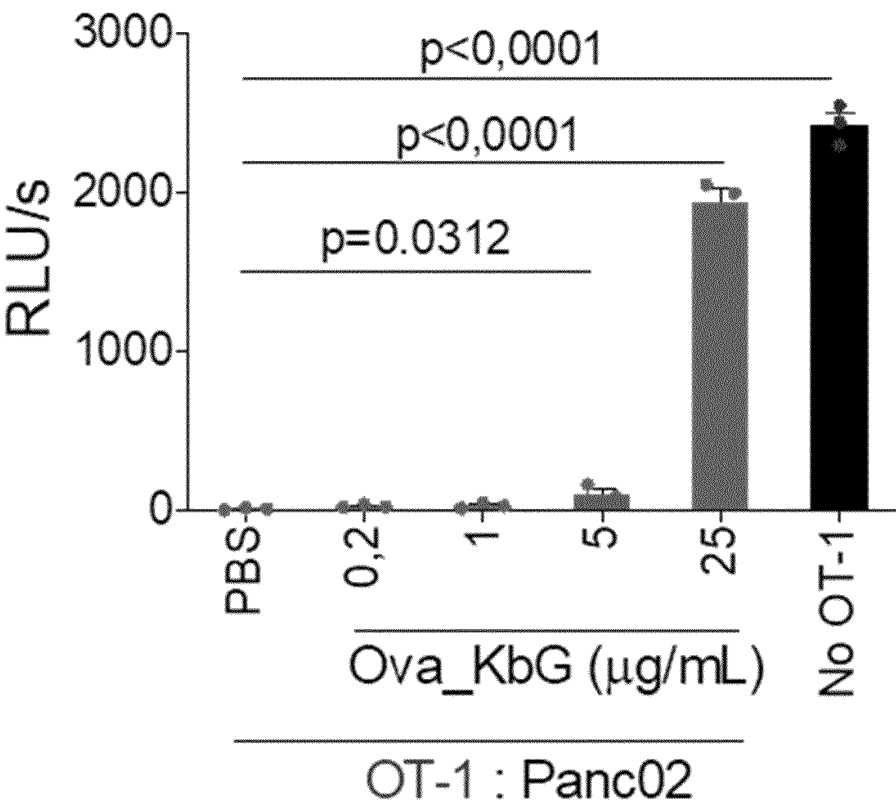


Mean and SD indicated.

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Figure 14

Single-chain MHC Ib molecules inhibit T cell lysis in a dose-dependent manner



Mean and SD indicated.

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Figure 15

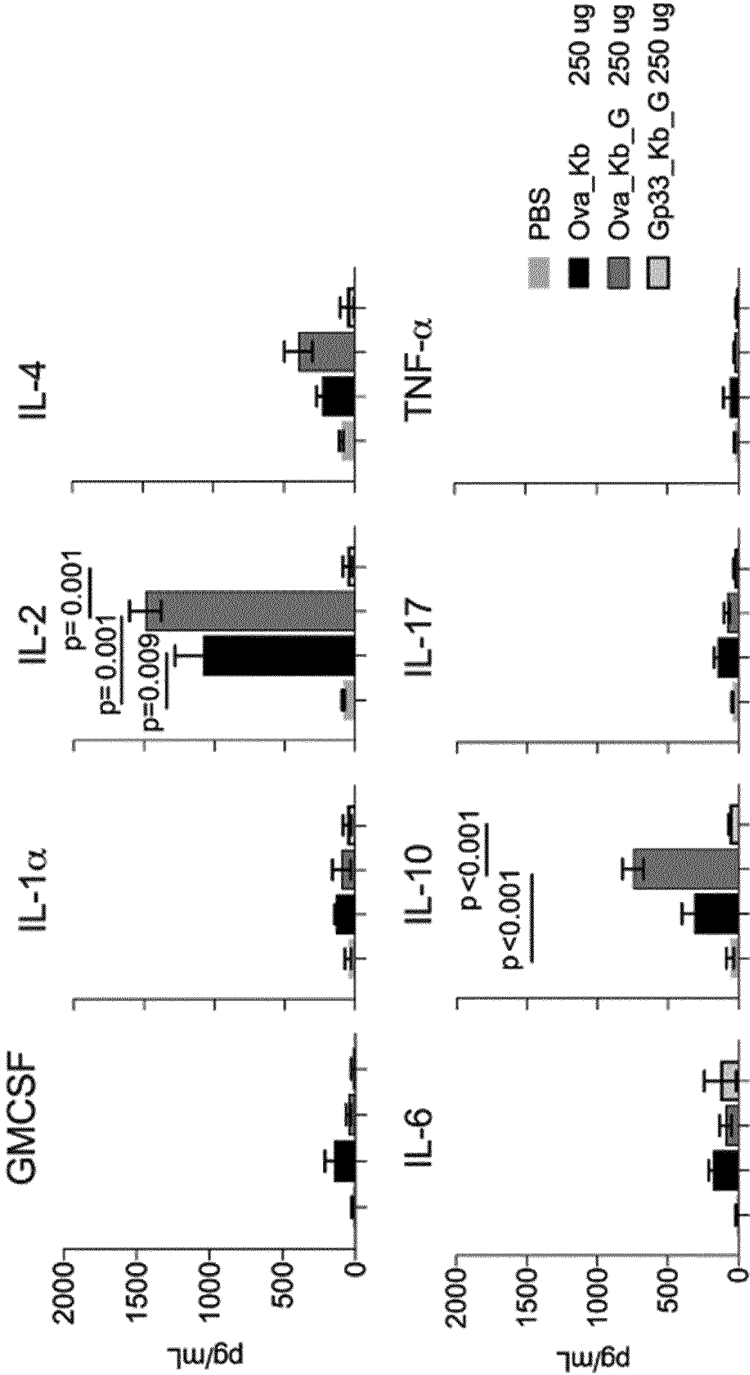
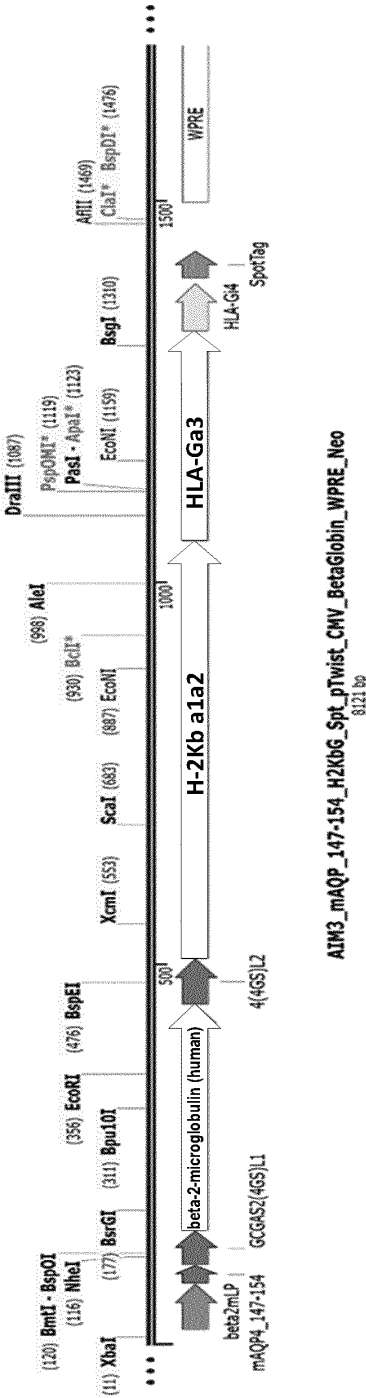


Figure 16

AQP147_KbG



AIM3_mAQP_147-154_H2KbG_Spt_pTwist_CHV_BetaGlobin_WPRE_Neo
8121 bp

Figure 17

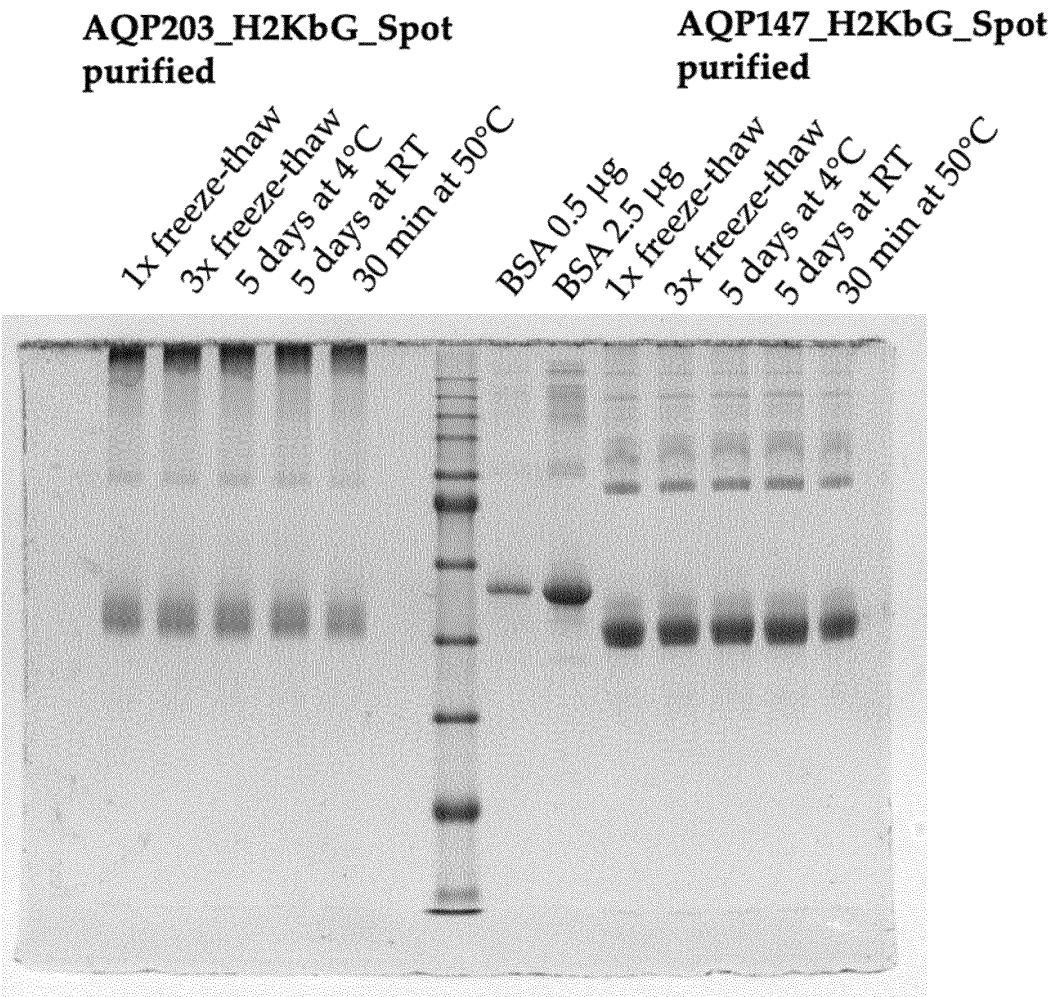
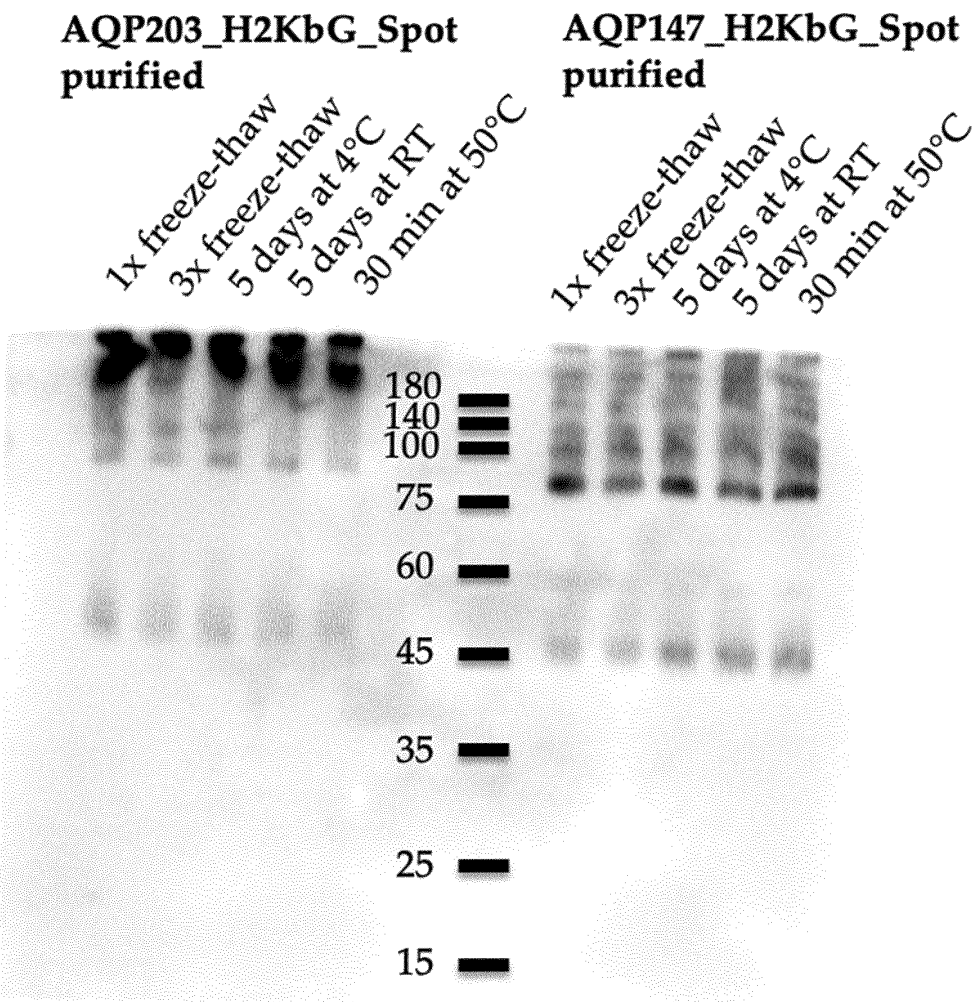
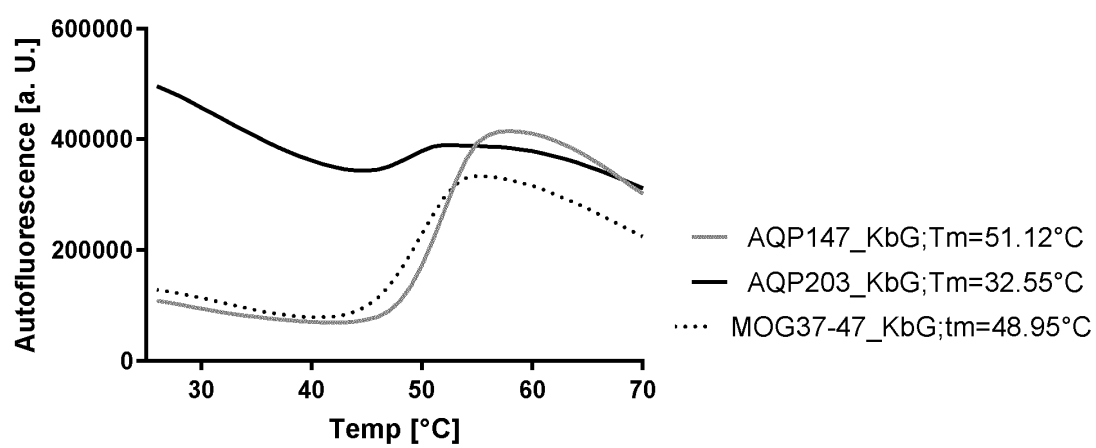


Figure 18



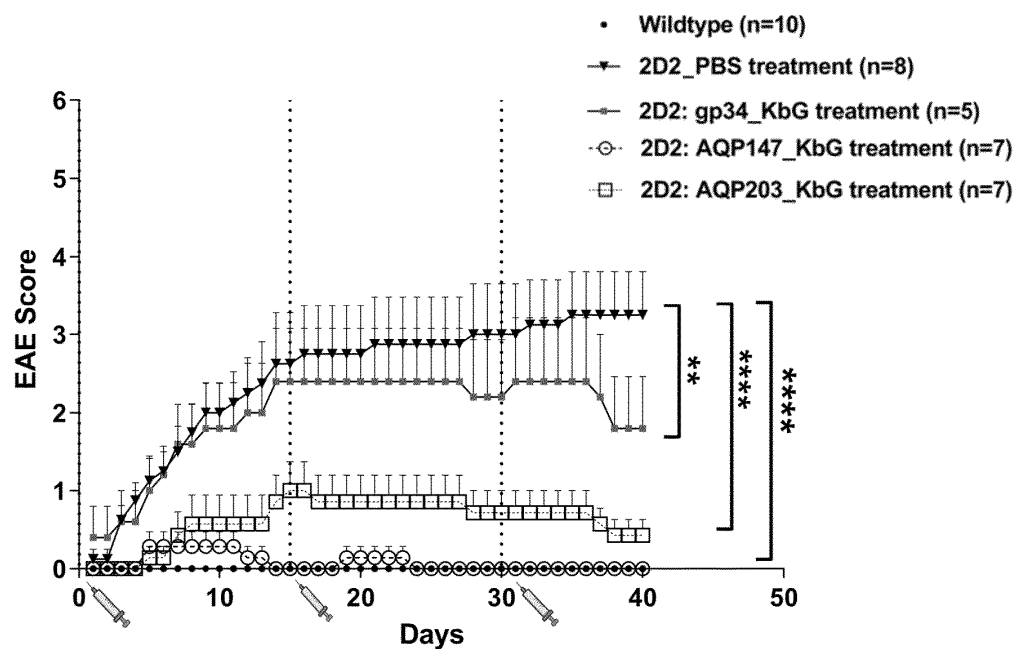
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Figure 19



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Figure 20



Mean and SD indicated.

P values: * < 0.05, ** < 0.01, *** < 0.001, **** < 0.0001

Figure 21

A

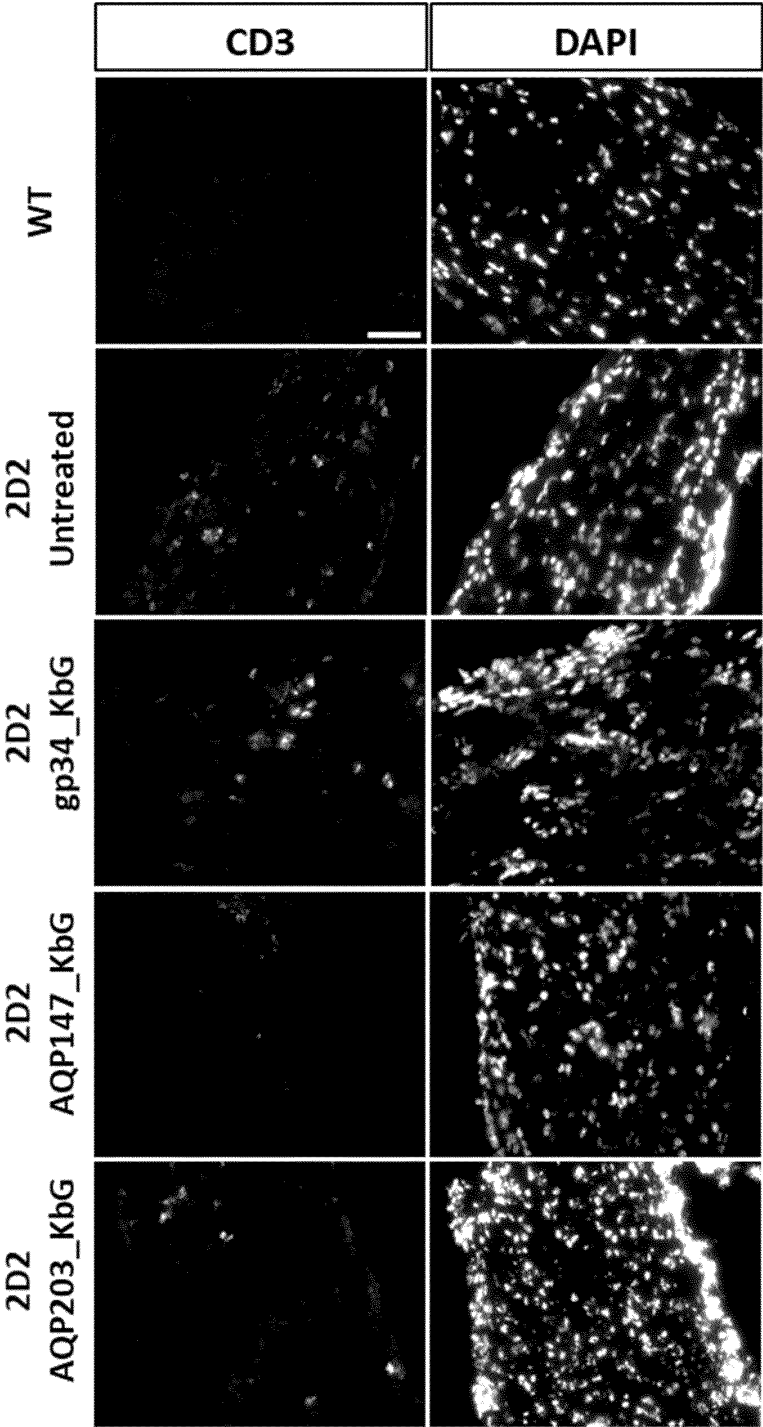


Figure 21, continued

B

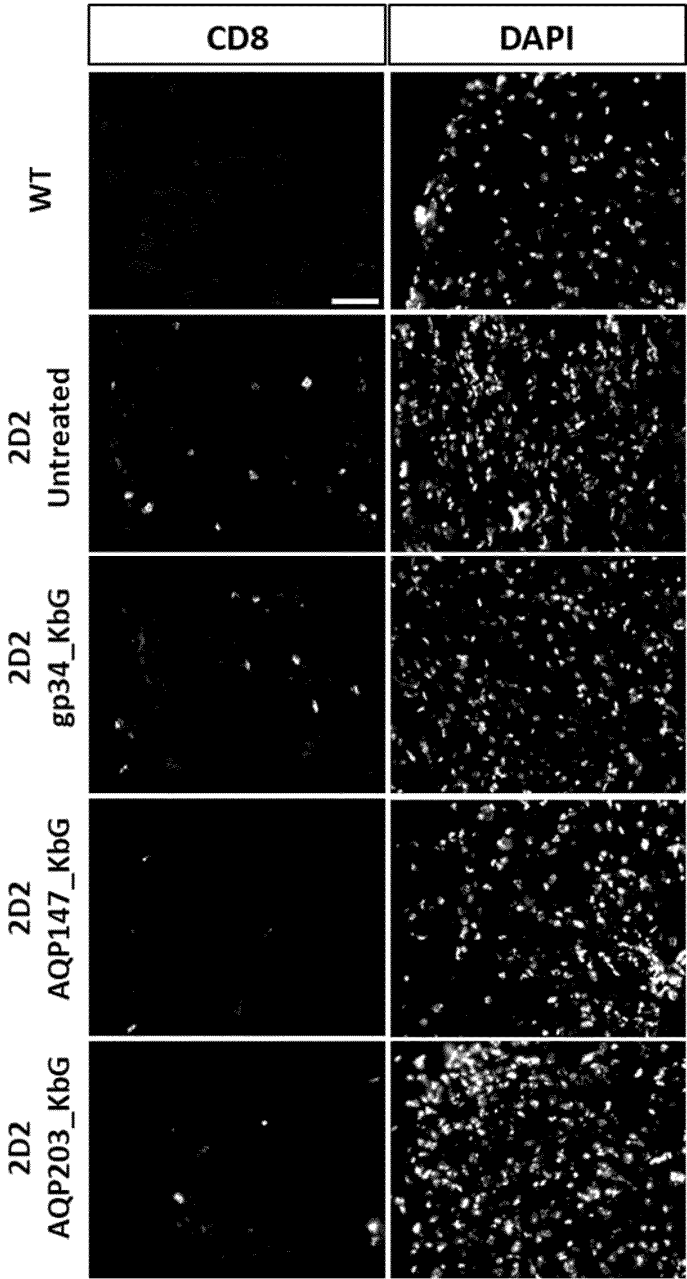


Figure 21, continued

C

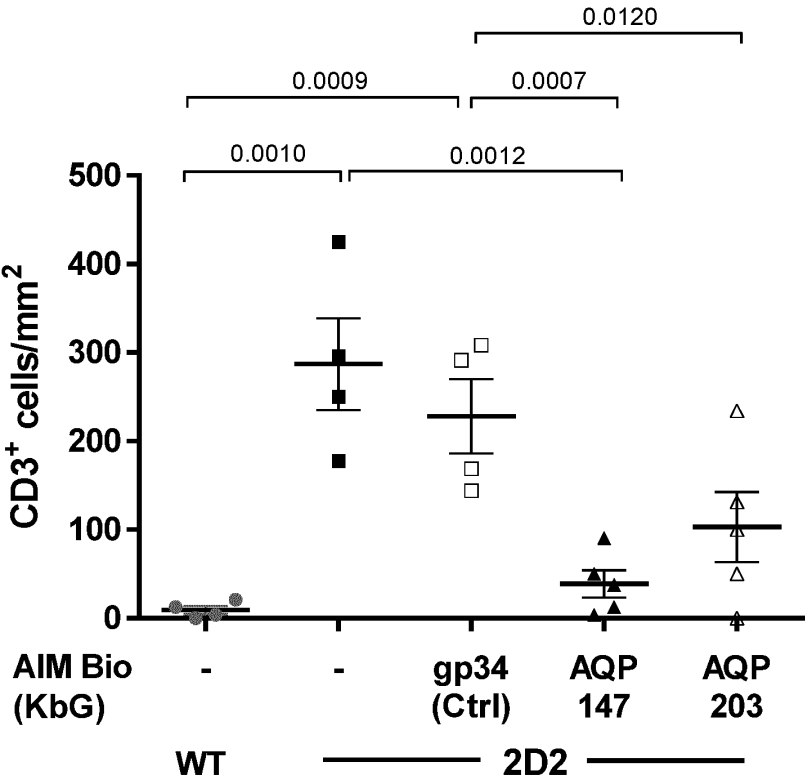


Figure 21, continued

D

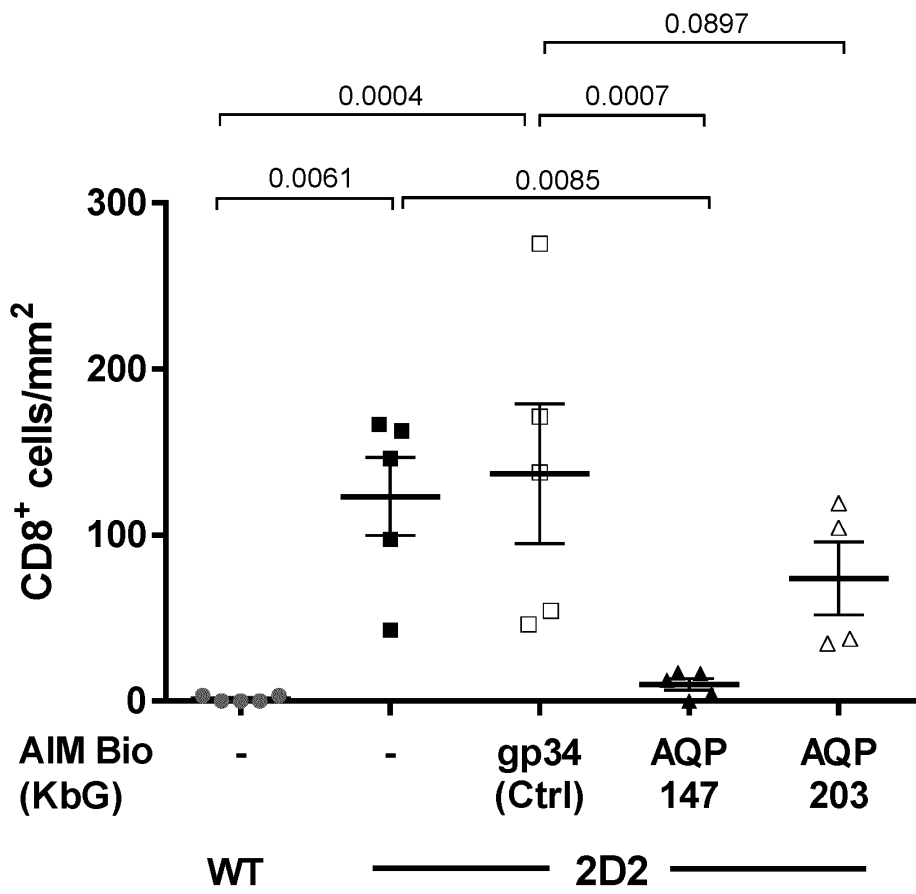
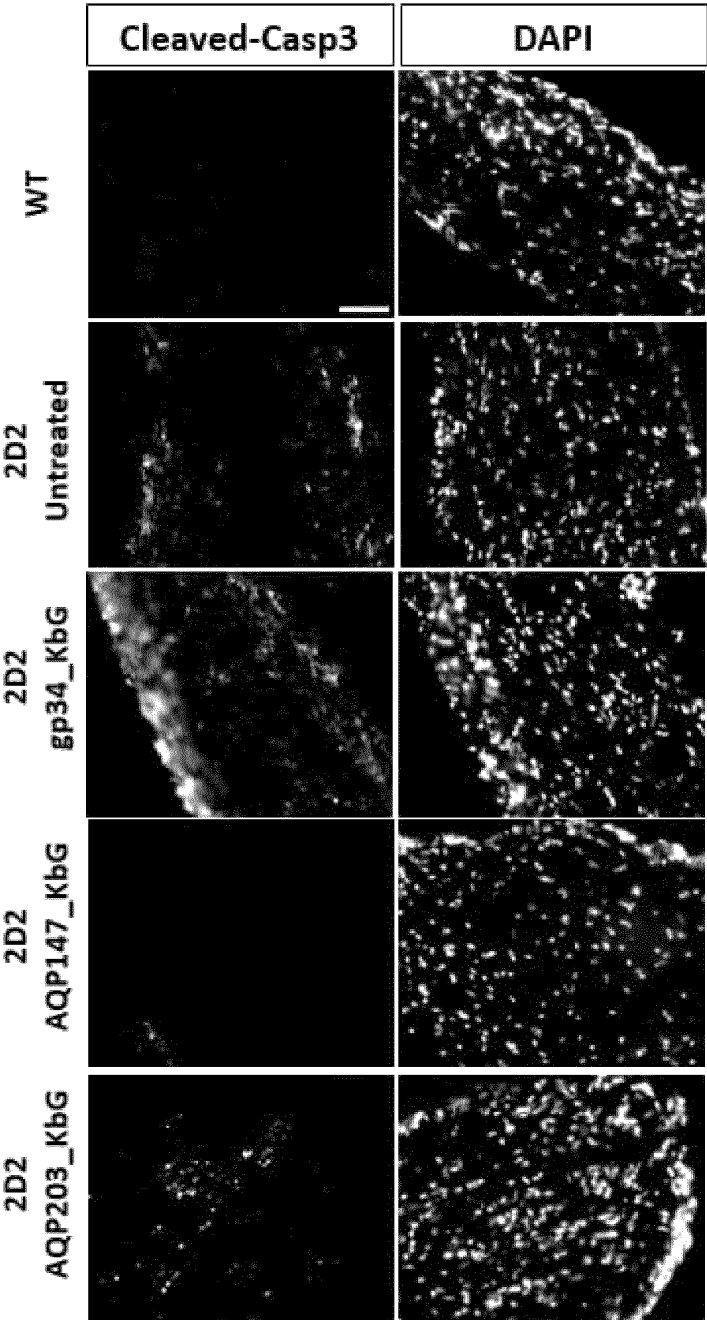


Figure 22

A

optic nerve



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Figure 22, continued

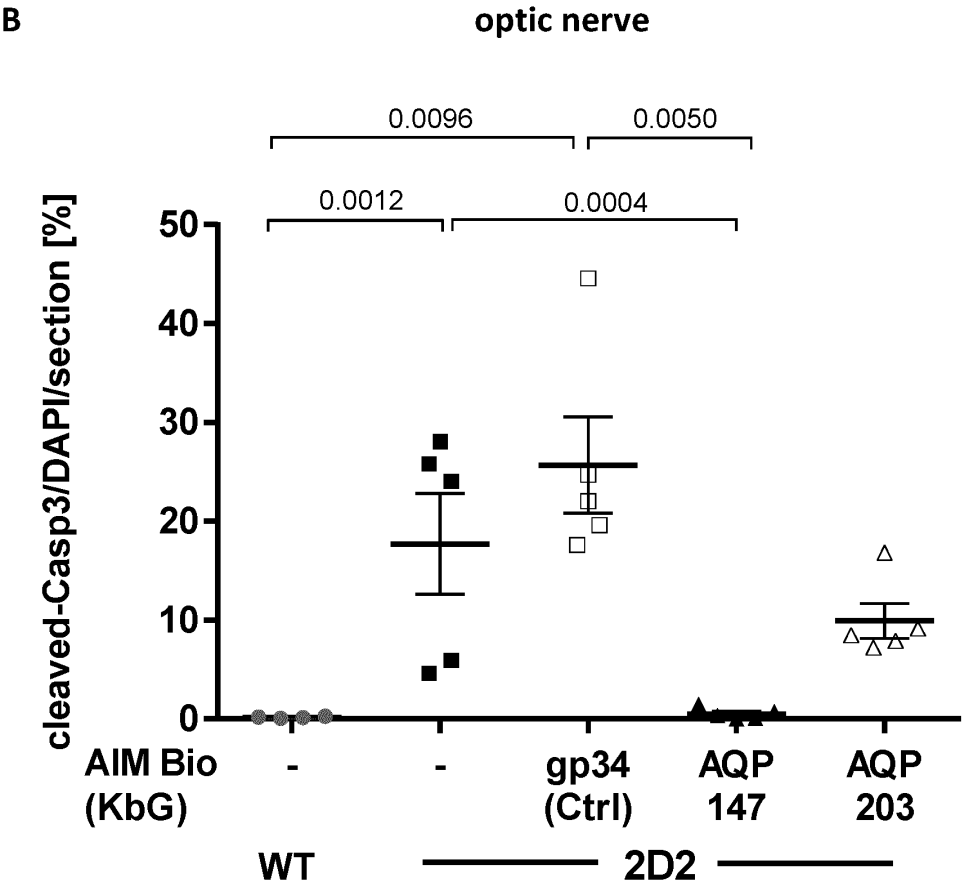
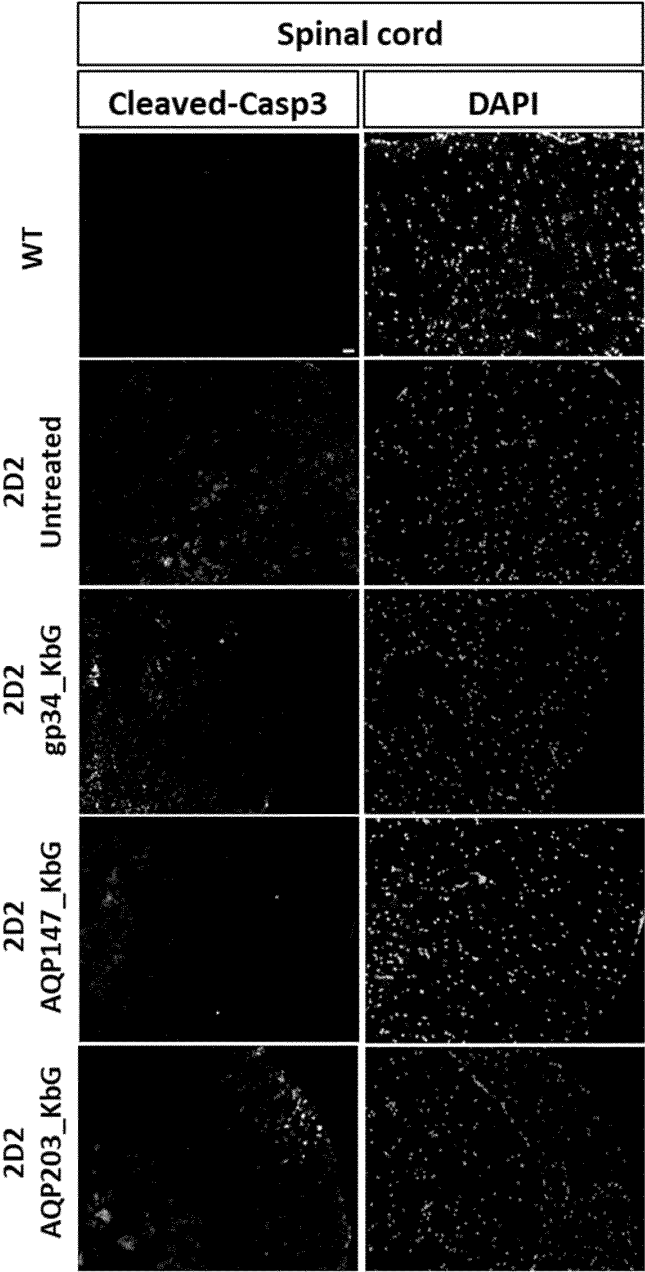


Figure 22, continued

C



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Figure 22, continued

D

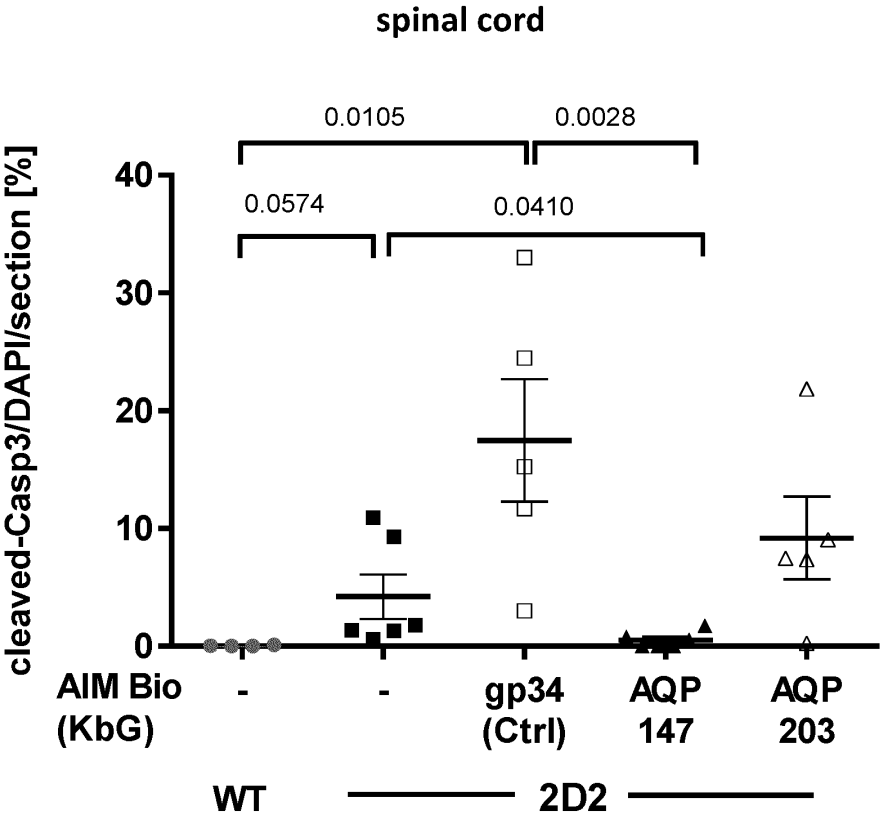
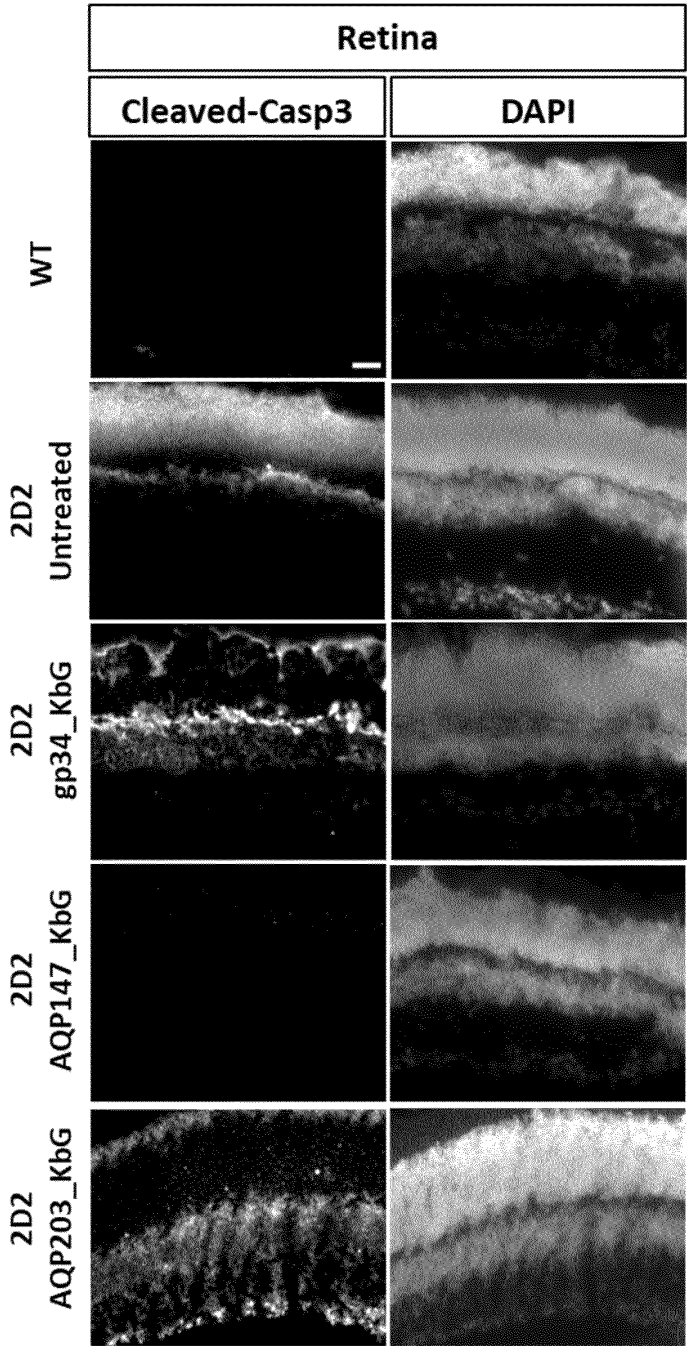


Figure 22, continued

E

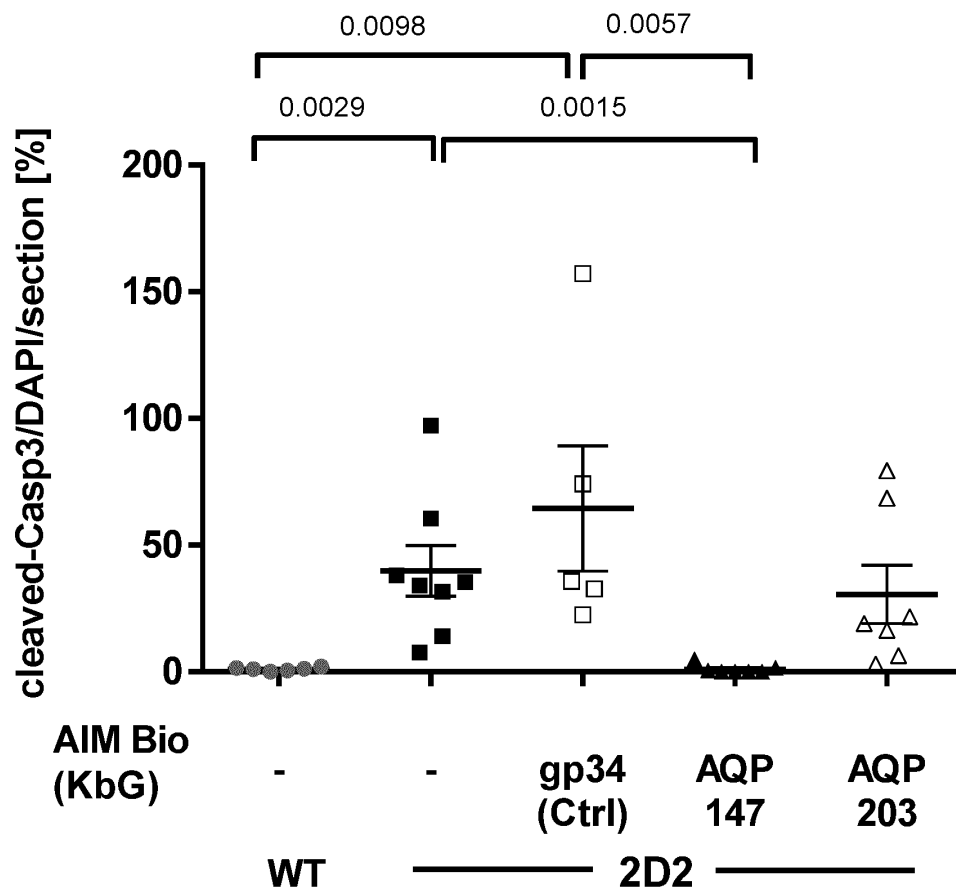


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Figure 22, continued

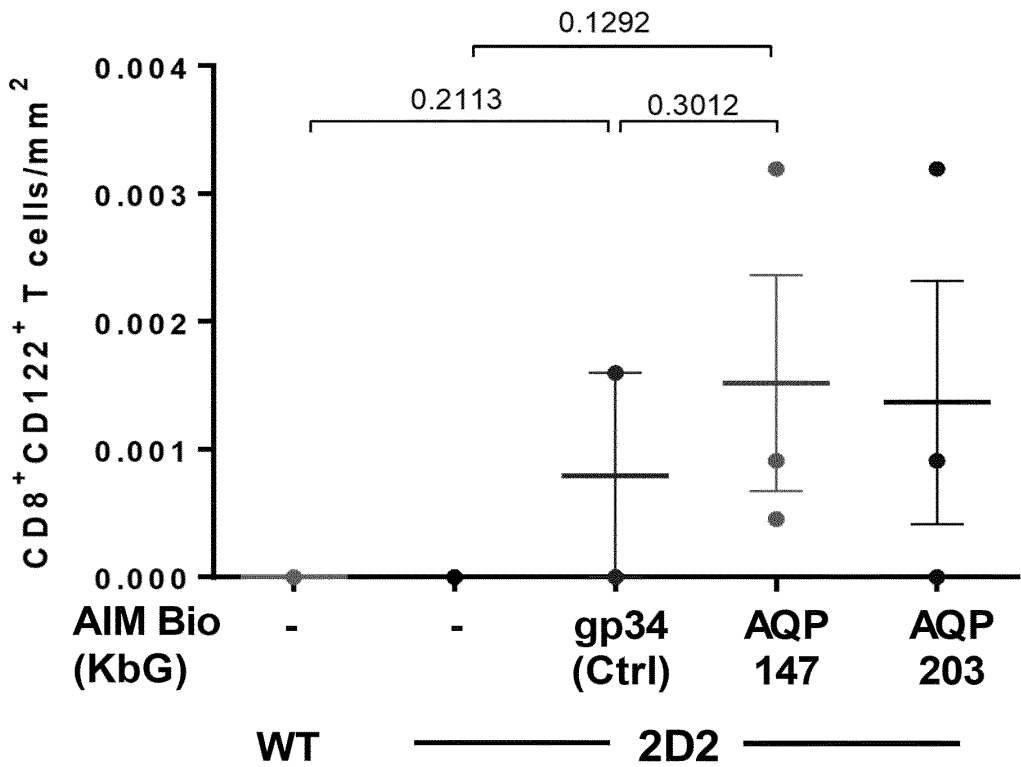
F

retina



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Figure 23



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Figure 23, continued

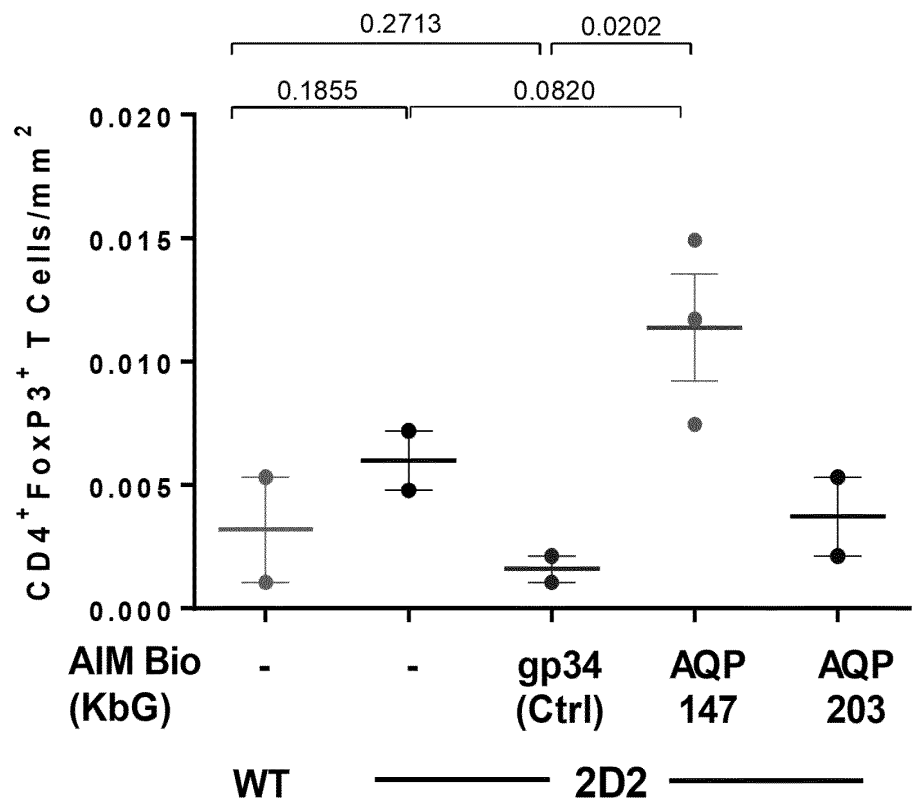


Figure 24

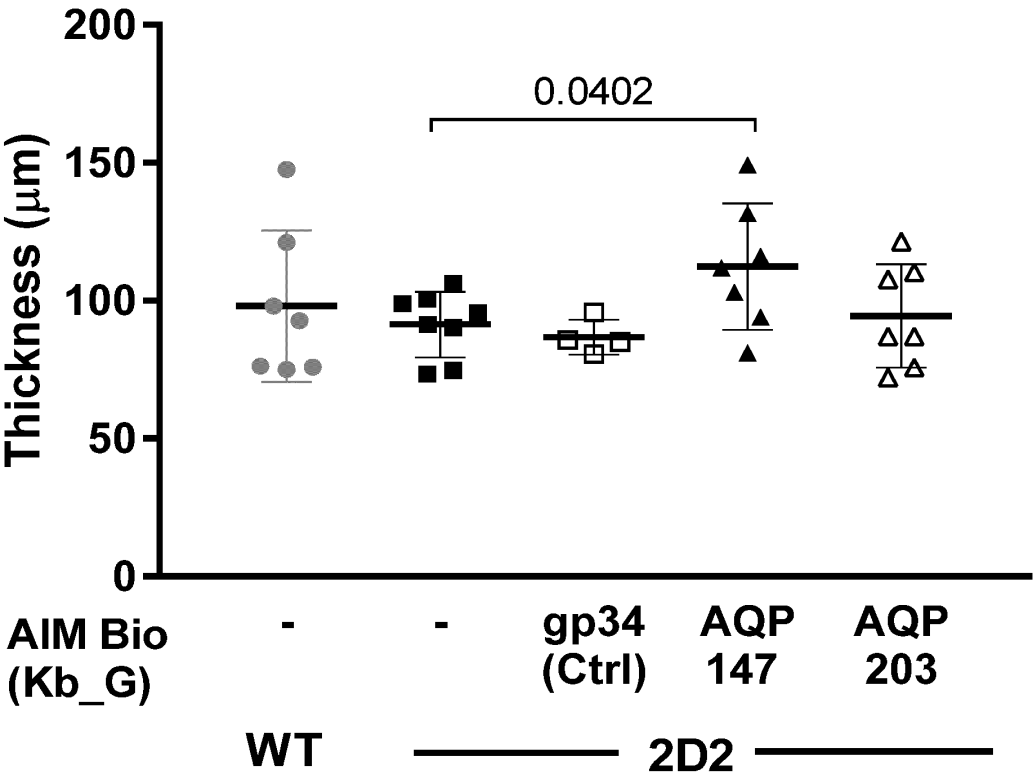


Figure 24, continued

