## I-a<sup>low</sup>CD11b<sup>high</sup> DC regulates the immune response in the eyes of experimental autoimmune uveitis

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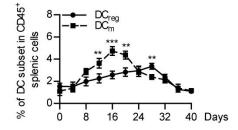
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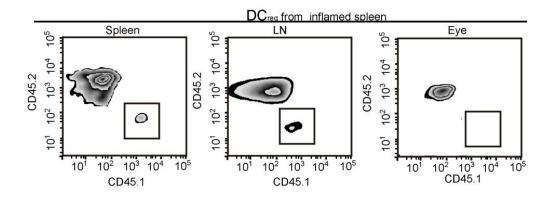
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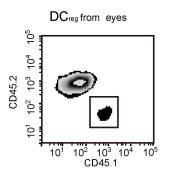
## **Supplementary Figure legends**



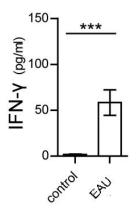
**Supplementary Figure S1**. Change of dynamic percentage of  $DC_{reg}$  and  $DC_m$  in  $CD45^+$  cells in the spleens of EAU. n = 15/group, the experiment was replicated three times, data were presented as mean  $\pm$  standard error of mean (SEM), Kruskal-Wallis test, \**P* < 0.05, \*\* *P* < 0.01, \*\*\**P* < 0.001.



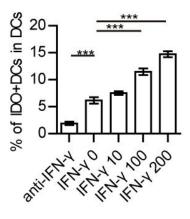
**Supplementary Figure S2.** Transferring  $DC_{reg}$  from inflamed spleen of CD45.1-expressing mice in the EAU, these cells appeared in lymph node (LN) or spleen of CD45.2- expressing EAU mice model, but not in the eyes.



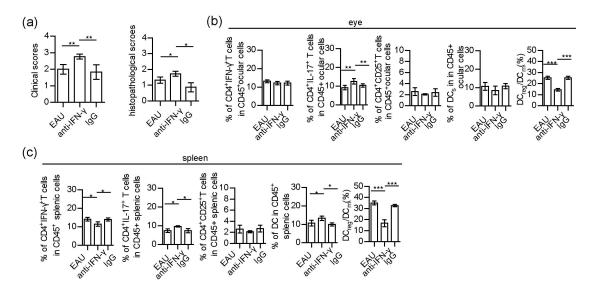
**Supplementary Figure S3.** The ocular  $DC_{reg}$  were adoptive transferred into EAU to arrive the inflamed eyes.  $DC_{reg}$  from the eyes of CD45.1 positive mice were adoptive transferred into CD45.2-expressing EAU mice. After 12 days, the ocular cells were analyzed by flow cytometry. The representative pictures were shown.



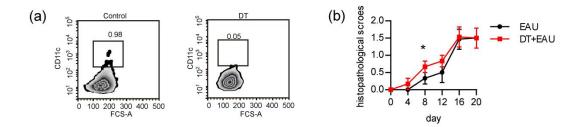
Supplementary Figure S4. The concentrations of IFN- $\gamma$  in the aqueous humor of EAU mice after 28 day immunization, compared with these without immunized. n = 5/group, experiments were replicated three times, and data were presented as mean  $\pm$  standard error of mean (SEM). Two-tailed Student's t-test, \*\*\**P* < 0.001.



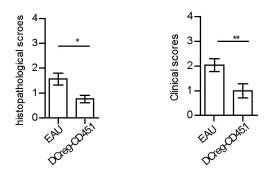
**Supplementary Figure S5.** With different concentrations of IFN- $\gamma$  treatment,or anti-IFN- $\gamma$  neutralizing antibodies treatment (2µg/ml), the percentage of IDO<sup>+</sup>DCs in the isolated ocular DCs. Mouse rIFN- $\gamma$  was used as 0U/ml (IFN- $\gamma$  0), 10U/ml (IFN- $\gamma$  10), 100U/ml (IFN- $\gamma$  100) and 200U/ml (IFN- $\gamma$  200) separately. n = 15/group, the experiment was replicated three times, data were presented as mean ± standard error of mean (SEM), ANOVA test, \*\*\**P* < 0.001



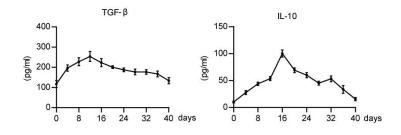
**Supplementary Figure S6.** IFN- $\gamma$  neutralizing antibody treatment aggravated the symptoms of EAU. (a). Clinical scores and histopathological scores of the eyes from IFN- $\gamma$  neutralizing antibody treated mice were analyzed, and compared with these without treatment. The percentage of CD4<sup>+</sup>IFN- $\gamma$ <sup>+</sup>T cells, CD4<sup>+</sup>IL-17<sup>+</sup>T cells, CD4<sup>+</sup>CD25<sup>+</sup>Foxp3<sup>+</sup> and DCs in the eyes (b) or spleen (c) of IFN- $\gamma$  neutralizing antibody treated mice, compared with these without treatment (n = 5/group, experiments were replicated three times, data were presented as mean ± standard error of mean (SEM), two-tailed Student's t-test was conducted, and \*\*\**P* < 0.001, \**P* < 0.05).



Supplementary Figure S7. Depletion of CD11c<sup>+</sup> cells with diphtheria toxin (DT), the symptom of EAU decreased. (a) With DT depletion, the CD11c<sup>+</sup> cells were analyzed in the eyes of CD11c-DTR-GFP, compared with that without depletion. (b) CD11c<sup>+</sup> cells were depleted by DT, and then IPBR and PTX were injected to construct the EAU model. The histopathological scores of inflamed eyes were analyzed every four days. Data were presented as mean  $\pm$  standard error of mean (SEM), Kruskal-Wallis test, \**P* < 0.05.



**Supplementary Figure S8.** The role of ocular  $DC_{reg}$  from normal eyes. The histopathological scores and clinical scores of EAU with or without transferring  $DC_{reg}$  from normal eyes of CD45.1-expressing mice. Data were presented as mean  $\pm$  standard error of mean (SEM), ANOVA test, \**P* < 0.05, \*\**P* < 0.01.



Supplementary Figure 9. The dynamic concentrations changes of TGF- $\beta$  and IL-10 in the serum of EAU were determined by ELISA. n = 5/group, experiments were replicated three times, and data were presented as mean  $\pm$  standard error of mean (SEM).