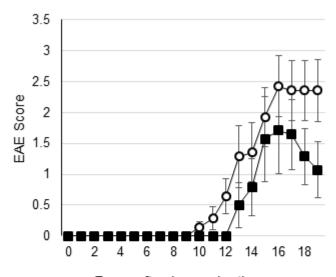


## Supplementary Figure 1.

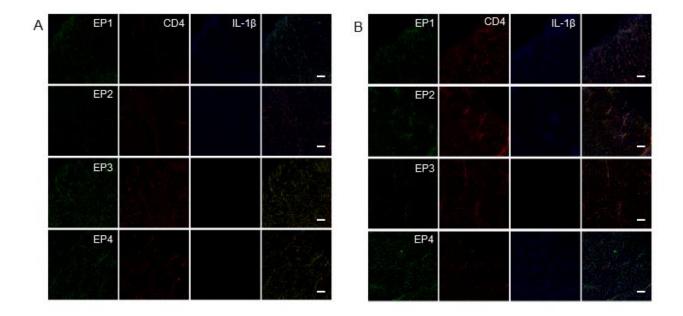
Immunohistochemistry image of microsomal PGE<sub>2</sub> synthase-1 (mPGES -1) (green) with CD19 (red) in the inflammatory region of spinal cords of EAE wild-type (wt) mice ( $\mathbf{A}$ ) and control wt mice ( $\mathbf{B}$ ). Scale bars (20 µm) for all images.



Days after immunization

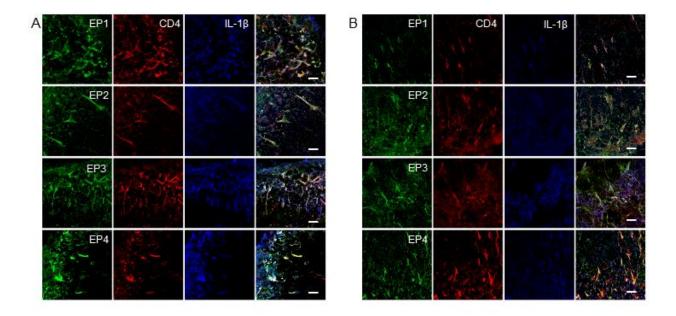
## Supplementary Figure 2.

EAE development in wt and mPGES-1-deficient (mPGES-1-\(^-\)) mice. The EAE score gradually increased and maintained a high level in wt mice (open circle) but promptly decreased in mPGES-1-\(^-\) mice (closed square).



## Supplementary Figure 3.

Expression of EP receptors and IL-1 $\beta$  in CD4+ T cells in the control spinal cord. Immunohistochemistry image showing EP 1-4 (green), CD4 (red) and IL-1 $\beta$  (blue) in the spinal cords of control wt mice (A) and control mPGES-1-- mice (B). Scale bar (50  $\mu$ m) for all images.



## Supplementary Figure 4.

Expression of EP receptors and IL-1 $\beta$  in CD4+ T cells in the EAE spinal cord. Immunohistochemistry image showing EP 1-4 (green), CD4 (red) and IL-1 $\beta$  (blue) in the inflammatory region of spinal cords of EAE wt mice (A) and EAE mPGES-1-- mice (B). Scale bar (20  $\mu$ m) for all images.