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Supplemental Information

SGK1 Governs the Reciprocal

Development of Th17 and Regulatory T Cells

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Supplemental Figures

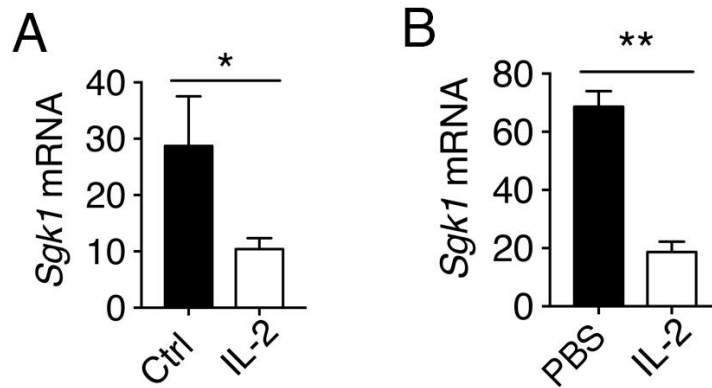


Figure S1. *Sgk1* expression was reduced under IL-2 treatment. Related to Figure 1. (A) tTreg cells were in vitro stimulated with or without IL-2 for 3 days. *Sgk1* mRNA expression level was determined by q-PCR. (B) WT mice were intraperitoneally injected with PBS or IL-2-anti-IL-2 complex for 3 days. tTreg cells were isolated from different groups and *Sgk1* mRNA expression level was determined by q-PCR. Data are representative of three independent experiments. Error bars represent SEM. * $P < 0.05$, ** $P < 0.01$ (Student's t-test, error bars, SD).

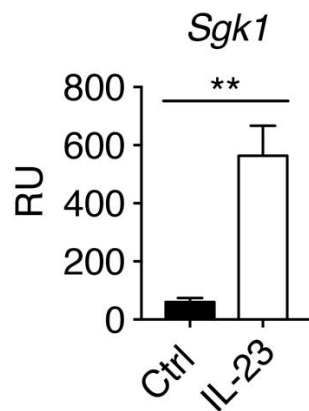


Figure S2. *Sgk1* expression was upregulated in $\gamma\delta$ T cells after IL-23 treatment. Related to Figure 4. SGK1 expression level in $\gamma\delta$ T cells from intraepithelial lymphocytes with or without IL-23 stimulation was determined by qPCR. Data are representative of three independent experiments. Error bars represent SEM. **P < 0.01 (Student's t-test, error bars, SD)

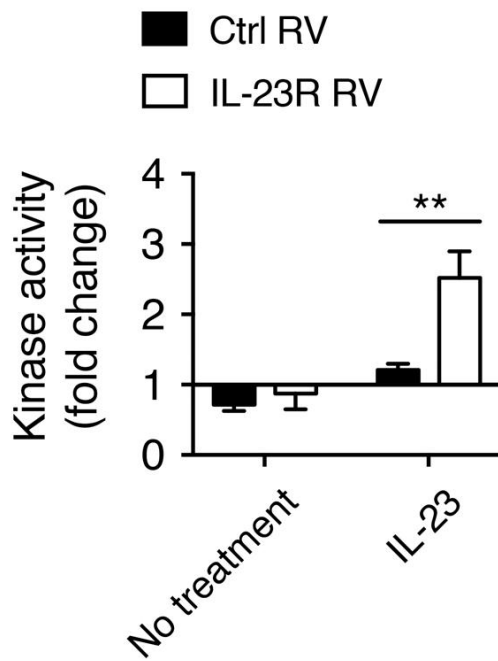


Figure S3. IL-23R enhanced the kinase activity of SGK1. Related to Figure 4. Naive WT T cells were transduced with retrovirus expressing control vector (Ctrl RV) or IL-23R-expressing vector (IL-23R RV) and stimulated with or without IL-23 in the presence of anti-CD3/28. SGK1 kinase activity was measured in different groups. Data are representative of three independent experiments. Error bars represent SEM. **P < 0.01 (Student's t-test, error bars, SD)

Supplemental Experimental Procedures

SGK1 Kinase activity assay

Cell lysates were prepared as described above and SGK1 was immunoprecipitated from the lysates with anti-SGK1 (Abcam, ab43606). The immunoprecipitate was washed extensively and SGK1 kinase activity was assessed with a luminescence-based assay (SGK1 kinase ADP-Glo™ Kinase Assay, Promega).