

Possible Contribution of Inflammation-Associated Hypoxia to Increased $K_{2P5.1}$ K^+ Channel Expression in $CD4^+$ T cells of the Mouse Model for Inflammatory Bowel Disease

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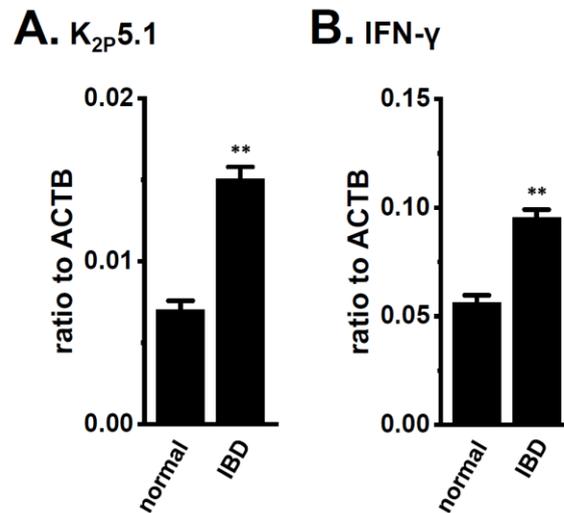


Figure S1. Increased expression levels of $K_{2p5.1}$ and IFN- γ transcripts in splenic $CD4^+$ T cells of IBD model mice. A, B: Real-time PCR assay for $K_{2p5.1}$ (A) and IFN- γ (B) in the splenic $CD4^+CD25^-$ T cells of 'normal' and 'IBD' model mice (n=4 mice for each). Expression levels were shown as a ratio to ACTB. Results are expressed as means \pm SEM. **: $p < 0.01$ vs. normal.

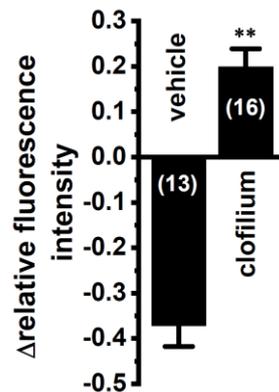


Figure S2. Disappearance of $K_{2p5.1}$ activity by application of clofilium (5 μ M) in hypoxia-exposed splenic $CD4^+$ T cells. Summarized results of voltage-sensitive fluorescent dye imaging of alkaline pH (pH 8.5)-induced changes in relative fluorescent intensity of DiBAC₄(3) in the presence ('clofilium') and absence ('vehicle') of 5 μ M clofilium in hypoxia-exposed splenic $CD4^+$ T cells. Cells were isolated from two different mice in each group. Cell numbers used in experiments are shown in parentheses. Results are expressed as means \pm SEM. **: $p < 0.01$ vs. vehicle control.

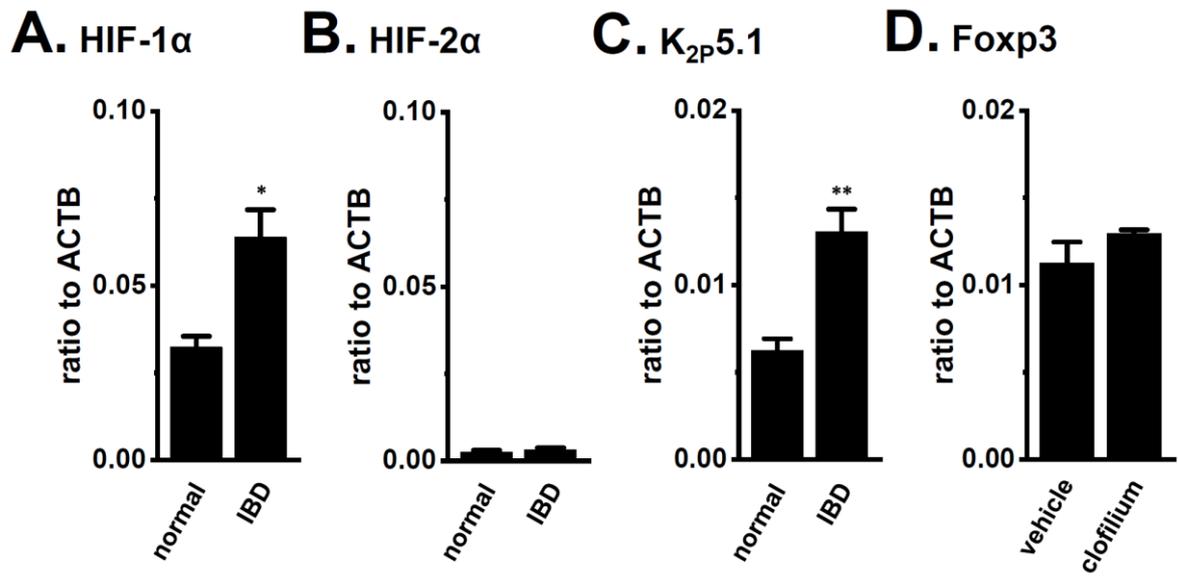


Figure S3. Expression levels of HIF-1 α , HIF-2 α , and K_{2p}5.1 in splenic CD4⁺ CD25⁺ T_{reg} cells of DSS-induced IBD model mice and effects of the treatment with 5 μ M clofilium for 24 h on expression levels of Foxp3 in Con-A-stimulated splenic CD4⁺ T cells. A-D: Real-time PCR assay for HIF-1 α (A), HIF-2 α (B), and K_{2p}5.1 (C) in the splenic CD4⁺CD25⁺ T_{reg} cells of 'normal' and 'IBD' model mice and Foxp3 (D) in clofilium-treated CD4⁺ T cells (n=4 mice for each). Expression levels were expressed as a ratio to ACTB. Results are expressed as means \pm SEM. *, **: $p < 0.05, 0.01$ vs. normal mice (normal) or vehicle control (vehicle).