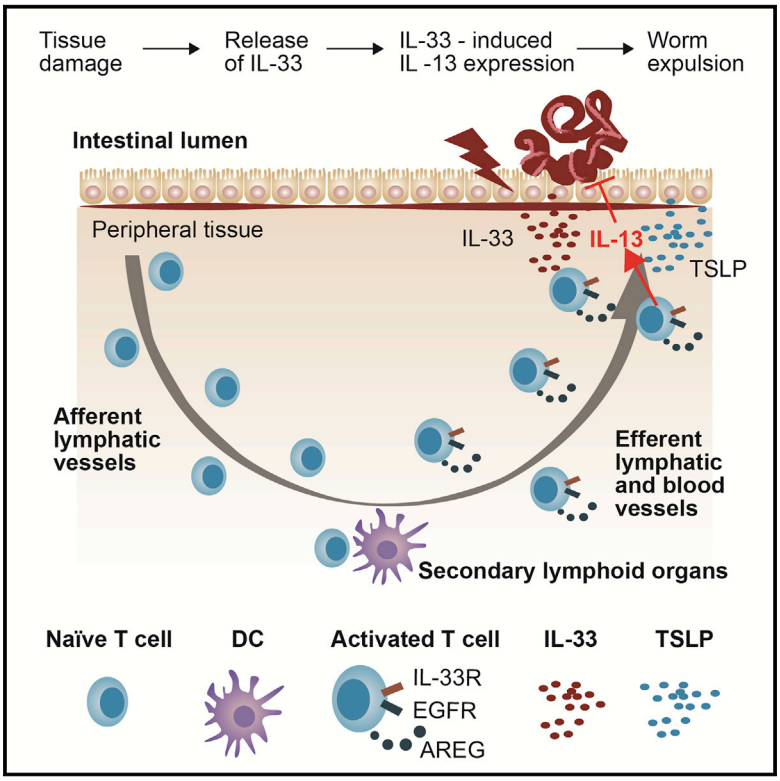
Article

Immunity

Epidermal Growth Factor Receptor Expression Licenses Type-2 Helper T Cells to Function in a T Cell Receptor-Independent Fashion

Graphical Abstract



Highlights

- Mice lacking EGFR expression on T cells are more susceptible to worm infections
- EGFR forms a complex with T1/ST2, allowing for IL-33 induced IL-13 expression
- Amphiregulin-mediated EGFR activation is essential for complex formation with T1/ST2
- EGFR expression is induced by TCR engagement and sustained by cytokines, such as TSLP

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In Brief

At the site of infection, Th2 cells secrete IL-13 upon exposure to IL-33. Minutti et al. now show that TCR-induced expression of the EGFR and its ligand amphiregulin was essential for IL-33-induced IL-13 secretion, revealing a mechanism whereby antigen-specific activation controls the innate effector function of Th2 cells.

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