

T cell Transfer Colitis in Rag2 Knockout Mice (model RAGN12)

In the adoptive transfer model of colitis, naïve T cells are harvested from a donor mouse and injected into an immunodeficient mouse with the same genetic background to induce colitis. Taconic Biosciences' Rag2 knockout mice on the C57BL/6NTac background (model RAGN12, B6.129S6-*Rag2^{tm1Fwa}* N12) are widely used as a recipient for this important colitis model. Model RAGN12 is available at both Murine Pathogen Free™ (MPF™) and Excluded Flora (EF) Health Standards to meet the needs of different research facilities. MPF™ animals may generate more consistent data in this application, whereas EF animals meet the stringent requirements of facilities co-housing other immunodeficient animals. Please contact us for more information.

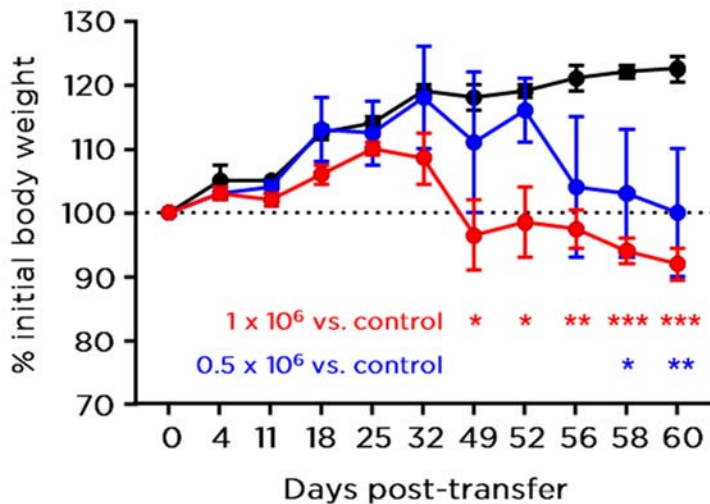
Example T cell transfer colitis data

(provided by an anonymous pharmaceutical company)

Female Rag2 knockout mice on a C57BL/6NTac background (Model RAGN12) at the MPF™ Health Standard were used as recipients and female C57BL/6NTac mice were used as donors. Naïve CD4⁺ T cells were isolated from peripheral lymph nodes, using a gating strategy to deplete regulatory T cells (CD4⁺CD45RB^{hi}CD25⁻), and injected into recipients at varying doses (0.5 x 10⁶, 1 x 10⁶ or saline, as a control).

(Left) Body weights of Rag2 knockout mice following administration of CD4⁺CD45RB^{hi}CD25⁻ T cells. Mean values are indicated and bars represent SEM; *P<0.05, **P<0.01, ***P<0.001; n=4-6.

(Right) Representative gross colon pathology and splenomegaly of Rag2 knockout mice 60 days following injection with 1 x 10⁶ CD4⁺CD45RB^{hi}CD25⁻ T cells or saline (control).



CD4⁺CD45RB^{hi}CD25⁻:

- control
- 0.5 x 10⁶
- 1 x 10⁶



1 x 10⁶ control
CD4⁺
CD45RB^{hi}
CD25⁻