

Mouse Models for Immune Cells Tracking

Reporter gene imaging is a powerful means to detect the location and function of diverse cell populations in vivo. Generation of immune cells marked with reporter genes permits tracking of immune responses to pathogens and cancer in vivo studies. SMOC has established a repository of mouse models of which type-specific immune cells were labeled using luciferase and EGFP, providing easy and robust means for studies of immune cell infiltration and evaluation of drug efficacy.

Strain Name: Cd8a-Luc-EGFP

Catalog Num: NM-KI-18030

Strain State: Embryo Cryopreservation

Application: Cd8a-expressing Cells Tracking

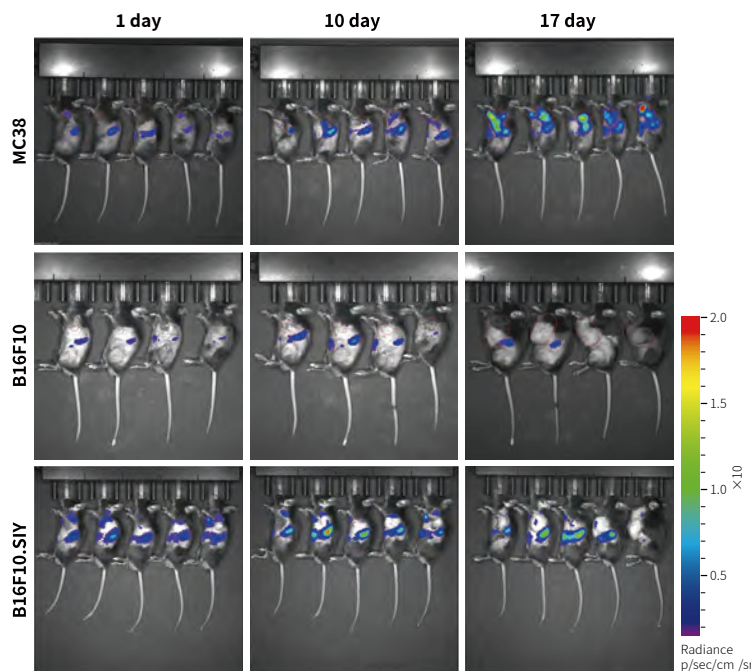


Figure 2. Bioluminescence imaging of CD8⁺ T cells in Cd8aLuc-EGFP mice after inoculation of tumor cells, which suggests enhanced T cell recruitment and infiltration into the tumor mass in Cd8a-Luc-EGFP mice following the implantation of MC38 cells and SIY-expressing B16 melanoma cells.

More mouse models for immune cells tracking listed as follows

| Strain Names | Catalog Num | Target Cells |
|--------------------|--------------|--|
| Cd19-EGFP-Luc | NM-KI-200058 | B cells |
| Foxp3-Luc-tdTomato | NM-KI-18034 | Regulatory T cells |
| Itgax-tdTomato-Luc | NM-KI-190116 | Dendritic cells |
| Lyz2-mtagBFP-Luc | NM-KI-200029 | Monocytes, mature macrophages and granulocytes |
| Ncr1-mtagBFP-Luc | NM-KI-200030 | Natural killer cells |

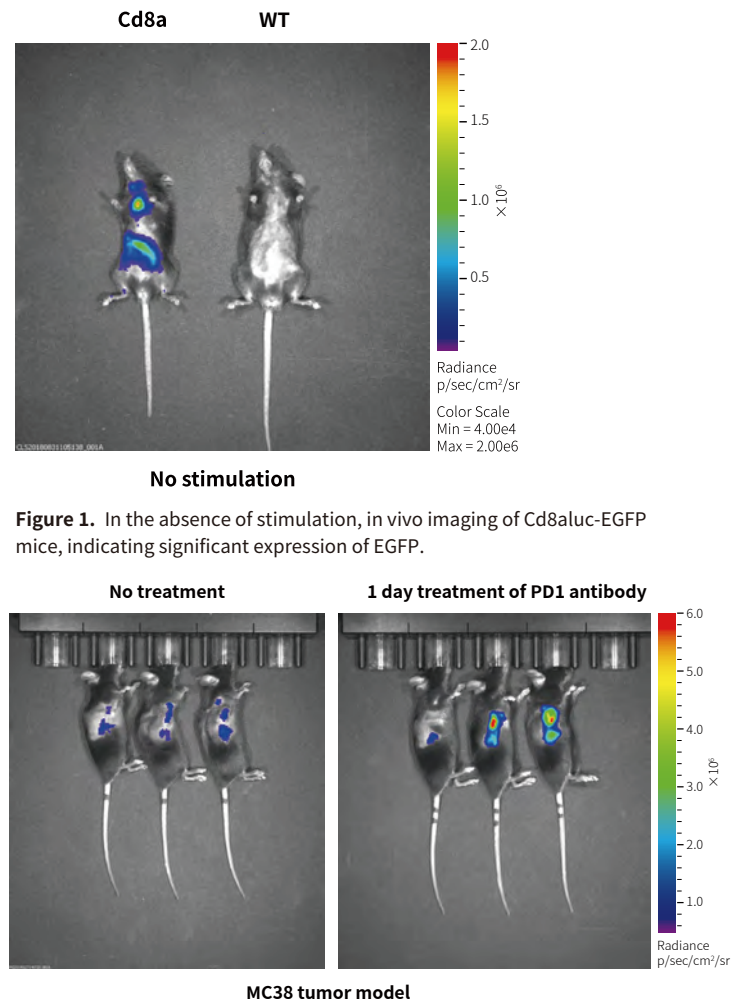


Figure 3. In vivo imaging of MC38 tumor-bearing Cd8aluc-EGFP mouse model, suggesting significant enhancement of fluorescence following 1 day administration of PD1 antibody.

Shanghai Model Organisms Center, Inc.

Headquarters: 178 Banxia Road, Pudong New District, Building 2, 3rd floor, Shanghai, China

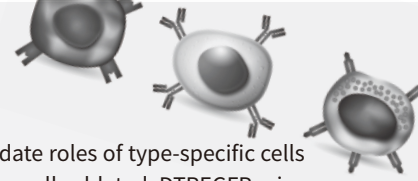
US Office: 56 Sugar Creek Center Blvd, Suite 375, Sugar Land, TX 77478

www.modelorg.us • service.us@modelorg.com



Mouse Models for Immune Cells Ablation

The immune system is composed of cells and molecules with specified roles in immune responses. To elucidate roles of type-specific cells in immune responses, SMOG has established a repository of DTREGFP mouse models with specified immune cells ablated. DTREGFP mice possess diphtheria toxin inducible system by which administration of diphtheria toxin can result in depletion of specific cell populations.



Strain Name: Cd8a-DTREGFP

Catalog Num: NM-KI-190045

Strain State: Embryo Cryopreservation

Application: Cd8a-expressing Cells Tracking

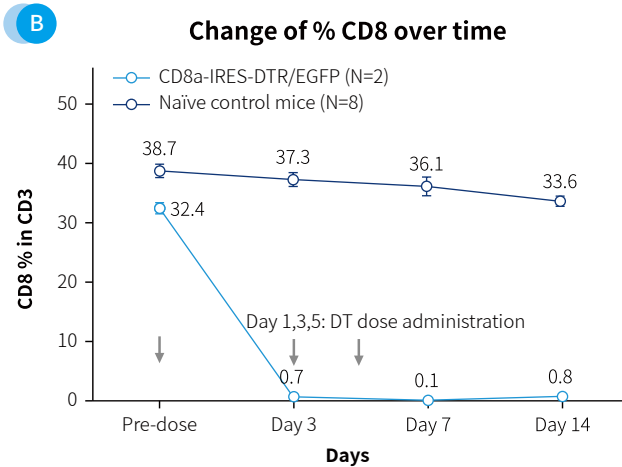
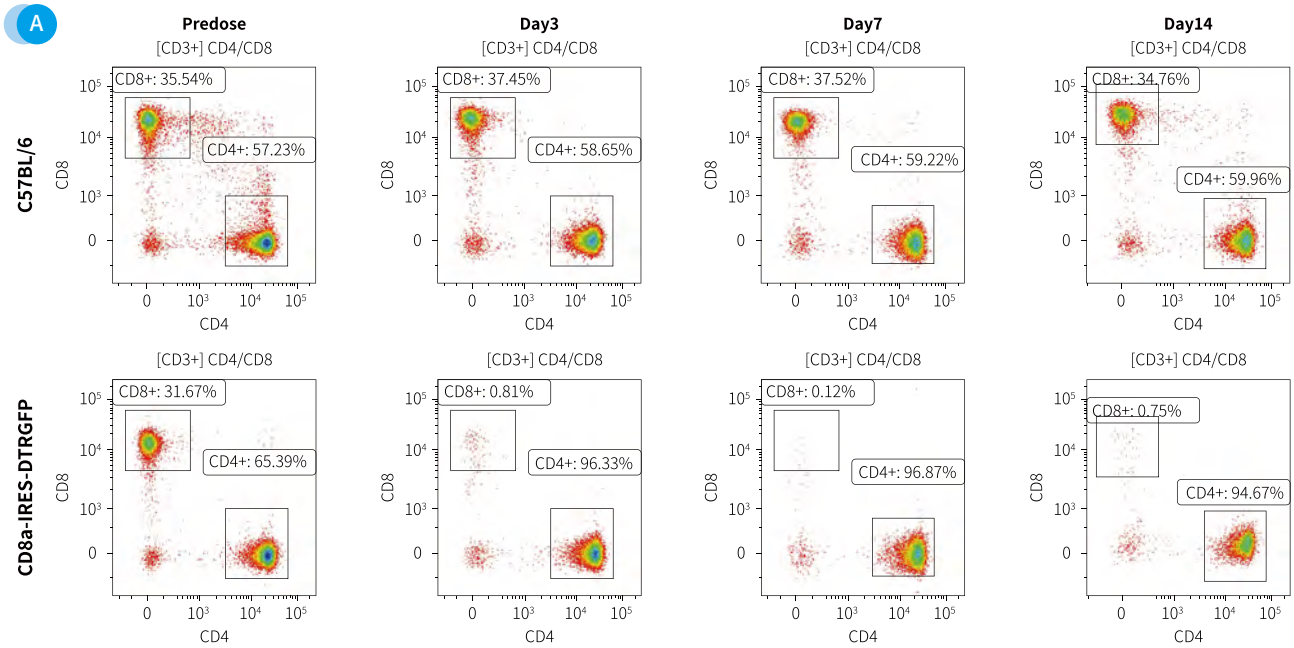


Figure 4. FACS analysis of the proportion of CD8+ T cell in peripheral blood of MC38 tumor-bearing CD8aDTREGFP/+ mice and C57BL/6 mice (A and B), suggesting that nearly complete depletion was achieved after 1 dose administration of DT and the effect lasted to day 14.

More mouse models for immune cells ablation listed as follows

| Strain Names | Catalog Num | Types of Cells Ablated |
|---------------|--------------|--|
| Cd19-DTREGFP | NM-KI-190042 | B cells |
| Cd4-DTREGFP | NM-KI-190121 | CD4 ⁺ T cells |
| Cd8a-DTREGFP | NM-KI-190045 | CD8 ⁺ T cells |
| Clec4f-DTRGFP | NM-KI-200070 | Kupffer cells |
| Foxp3-DTREGFP | NM-KI-190046 | Regulatory T cells |
| Itgam-DTREGFP | NM-KI-200066 | Macrophages |
| Itgax-DTREGFP | NM-KI-190043 | Dendritic cells |
| Lyz2-DTREGFP | NM-KI-190041 | Monocytes, mature macrophages and granulocytes |
| Ncr1-DTREGFP | NM-KI-190044 | Natural killer cells |