

BALB/c nude Mouse

Background: BALB/c nude

Features:

- Inbred mouse strain
- Foxn1^{nu} mutation leads to abnormal hair growth and defective development of thymic epithelium
- Lack of mature T lymphocytes

Phenotypic information

- Homozygous mice is athymic and hairless. The lack of T cells makes the mice permissive to allografts and xenografts.
- Heterozygous mice have hair, and they were initially thought to possess a normal immune system. However, in fact, they have defective immunity, such as decreased number of bone marrow stem cells and reduced weight of thymus. Thus, they may not be suitable for use as sentinels, but they can be used in PK/PD studies.

Applications:

- Allografts and xenografts, for example, evaluation of the proliferation, metastasis and invasion ability of tumor cells, and the efficacy of anti-cancer therapy
- Immunology and Genetics
- Infection mechanism of viruses, bacteria and parasites
- Skin diseases and microbiology
- Endocrinology and Geriatrics

Model Validation:

CDX

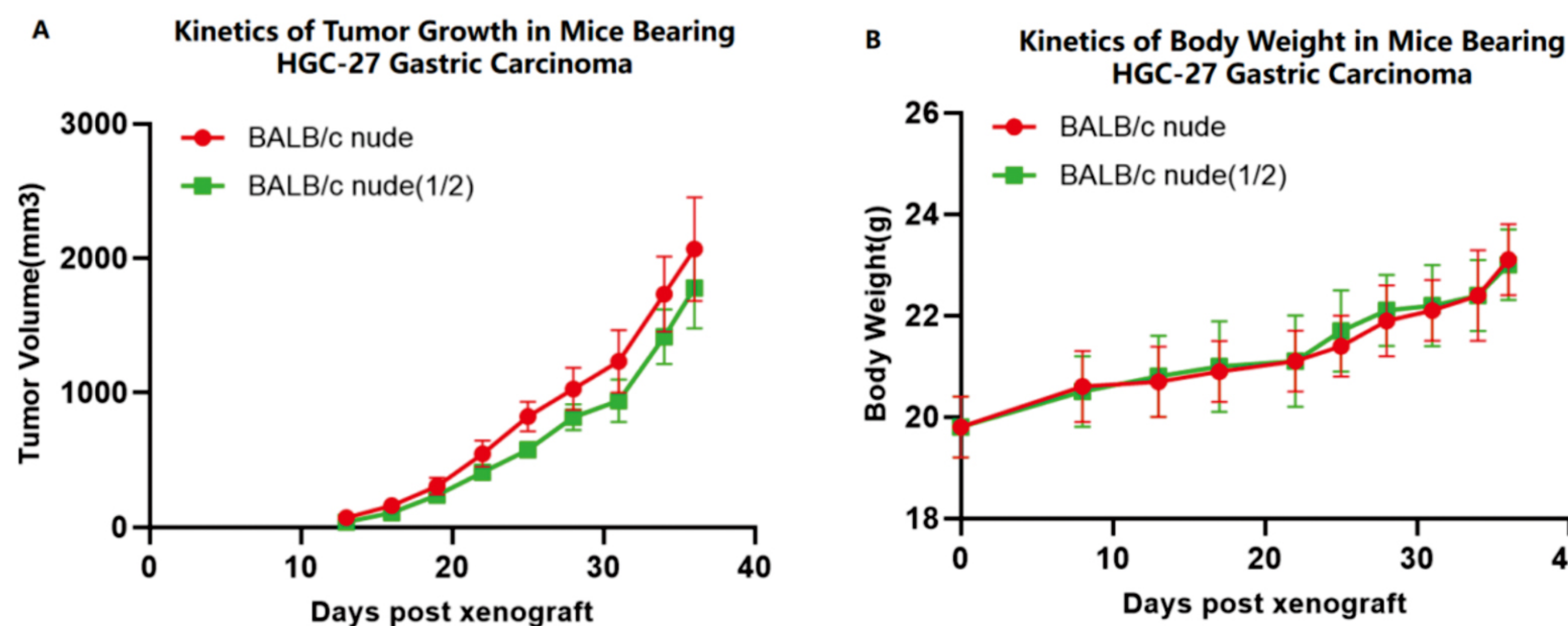


Figure 1. Kinetics of Tumor growth and body weight in mice bearing HGC-27 gastric carcinoma.

5×10^6 or 1×10^7 HGC-27 human gastric carcinoma cells were injected subcutaneously into BALB/c nude mice. Tumor volume (Figure A) and body weight (Figure B) were measured at different time points.