SYNGENEIC TUMOR STUDIES

A syngeneic mouse model, also known as an allograft mouse tumor system, provides an effective approach for studying how cancer therapies perform in the presence of a functional immune system.

Cancer immunotherapies work with a patient’s own immune system to increase native anti-tumor responses. In the development of these drugs, conventional patient-derived xenograft (PDX) models lack relevance due to the models’ immunocompromised status. Syngeneic mouse models consist of tumor tissues from the same genetic background as the given immunocompetent mouse strain.

Our syngeneic studies allow you to evaluate the synergistic response of your test article used in conjunction with checkpoint inhibitors or to test novel immunomodulatory compounds.

WORK WITH THE WORLD LEADERS IN PRECLINICAL IO

Our syngeneic tumor models feature characterized response data for Anti PD-1 and Anti CTLA-4 checkpoint inhibitors.

Project support from Ph.D.-level study directors from initial study design to reporting.

Unmatched experience conducting large-scale IO studies for clients.
EXAMPLE STUDY

EXPERIMENTAL DESIGN

Subcutaneous engraftment into 6-8 week old mice of CT26 (Balb/cJ) backgrounds

5 study groups (n=10 per group):

- Vehicle, positive control (JAX provides), and three test groups (2 compounds+1 combo, 3 compounds or other permutations)
- Dosing up to 2x per week for up to 28 days
- Body weight/clinical observations/tumor volume measurements up to 3x per week

Example Conditions: Anti-Mouse PD1/CTLA4 in CT26 engrafted Balb/cJ

Mice: Female BALB/cJ at ~6 weeks of age

Cells: CT26 cells subcutaneously injected

Dosing: Mice were grouped into four groups: IgG control (n=10), Anti PD-1 (n=9), Anti CTLA-4 (n=10), and Anti PD-1 + Anti CTLA-4 (n=10). Mice were IP dosed as follows:

Measurements: Body weight/clinical observations/tumor volume measurements 2X-3X per week

Duration: Mice were taken off study when tumor volume reached 2000mm³

Study Results: Anti-Mouse PD1/CTLA4 in CT26 Engrafted Balb/cJ – Tumor Volume

Dosing Schedule

![Dosing Schedule](image-url)

DELIVERABLES

- Study report
- Terminal blood
- Tumor collection

ADD-ONS

- FACS analysis (blood, spleen, lymph nodes, tumor)
- Histology

Example Conditions: Anti-Mouse PD1/CTLA4 in CT26 engrafted Balb/cJ

Measurements: Body weight/clinical observations/tumor volume measurements 2X-3X per week

Duration: Mice were taken off study when tumor volume reached 2000mm³

Study Results: Anti-Mouse PD1/CTLA4 in CT26 Engrafted Balb/cJ – Tumor Volume

![CT26 in Balb/cJ Mice Tumor Volume](image-url)