In Vivo Antibody Dosing Guide: Quick Reference for Mouse Models

A practical guide for researchers based on published literature

ichor bio

Checkpoint Blockade Antibodies

RMP1-14 (Anti-PD-1)

Dose: 200-500 µg/mouse
Route: Intraperitoneal (i.p.)
Schedule: Every 3-4 days

Use: Cancer immunotherapy (PD-1 blockade)
Common: 200 µg standard for most models
Models: B16 melanoma, MC38 colon cancer

10F.9G2 (Anti-PD-L1)

Dose: 100-250 µg/mouse Route: Intraperitoneal (i.p.) Schedule: 2-3× per week

Use: PD-L1 blockade in cancer/infection
Common: 200 µg i.p. every 3 days
Target: PD-L1 (B7-H1, CD274)

Anti-CTLA-4: 9H10 & 9D9

Dose: 100-250 µg/mouse Route: Intraperitoneal (i.p.) Schedule: Every 3 days

Use: CTLA-4 blockade in cancer models
Note: 9D9 (IgG2b) depletes intratumoral Tregs
Common combo: With anti-PD-1/PD-L1

Immune Cell Depleting Antibodies

T Cell Depletion: GK1.5 (CD4) & 2.43 (CD8)

Dose: 200-250 µg/mouse
Route: Intraperitoneal (i.p.)
Schedule: 2-3× per week

Use: Depletion of CD4+ or CD8+ T cells
Verify: Flow cytometry for depletion efficiency
Duration: Sustained depletion needs repeated doses

Neutrophil Depletion: 1A8 (Ly6G) & RB6-8C5 (Gr-1)

1A8 Dose: 100-250 µg/mouse
RB6-8C5 Dose: 200-250 µg/mouse
Schedule: Every 2-3 days

Note: 1A8 more specific than RB6-8C5
RB6-8C5 also depletes some monocytes
Route: Intraperitoneal (i.p.)

Immune Activating Antibodies

145-2C11 (Anti-CD3ε)

Dose: 5-50 µg/mouse (low dose!)
Route: Intravenous (i.v.) - tail vein
Common: 5 µg/day × 5 days or 10 µg once

Use: T-cell activation, cytokine release
Application: Autoimmunity, transplantation
Note: Can induce tolerance at low doses

FGK4.5/FGK45 (Anti-CD40)

Dose: 50-300 µg/mouse
Route: Intraperitoneal or intravenous
Common: 100 µg i.p. for consecutive days

Use: Agonistic CD40 activation
Target: APCs (dendritic cells, B cells)
Application: Cancer immunotherapy adjuvant

PK136 (Anti-NK1.1)

Dose: 200-300 µg/mouse
Route: Intraperitoneal (i.p.)
Schedule: 1-3× per week

Use: NK cell depletion in vivo
Note: Works only in C57BL/6 & related strains
Application: Tumor models, viral infections

Administration Guidelines & Important Notes

Optimal Routes & Tips

Intraperitoneal (i.p.): Most common, convenient route Intravenous (i.v.): Faster distribution, can use lower doses Intratumoral: Sometimes used for checkpoint antibodies

Species & Strain Notes

These antibodies are rat (or hamster) anti-mouse clones For rat models: Use W3/25 (rat CD4), OX8 (rat CD8) Mouse strain variation: NK1.1 works only in C57BL/6

Always verify depletion/blockade efficiency with flow cytometry