

How to make up a mixture of any combination of anesthetic or analgesic drugs for easy MOUSE dosing

Target dosing schedule	
Animal Weight	Dose (in mL)
10g	0.10
12g	0.12
15g	0.15
18g	0.18
20g	0.20
25g	0.25
30g	0.30
35g	0.35

How to get there with any combination of drugs:

1. Target mixture volume: 10mL
2. Determine mg/kg dosage of each drug and add the number of milligrams to the reconstituted mixture corresponding to a 1kg animal. For example, if the ketamine dosage is 50 mg/kg, add 50mg to the mixture. For ketamine at 100 mg/mL this would be 0.5mL.
3. Repeat step 2 for each drug in the mixture (e.g. dexmedetomidine @ 1mg/kg: 1 mg @ 0.5 mg/mL =2mL.
4. Calculate the volume of saline to be added to top off the mixture to 10mL exactly and you have made a diluted drug mixture that corresponds to the above dosing chart for mice.

Example:

Ketamine/xylazine/ace at 100/20/3 mg/kg dosage:

Ketamine 100 mg/kg → 100mg @ 100mg/mL = 1mL

Xylazine 20mg/kg → 20 mg/kg @ 20mg/mL = 1mL

Acepromazine 3mg/kg → 3mg @10mg/mL = 0.3mL

Total volume of drugs = 2.3 mL

Total volume of sterile saline = 7.7mL (10mL target volume minus 2.3mL drug volume = 7.7mL sterile saline)

Drug can now be dosed to a mouse according to the preceding schedule by weight.