

Mouse Anesthesia Cocktails¹

Ketamine/Xylazine Cocktails^{2,3}

Recommended dose range: **Ketamine 80-100 mg/kg with Xylazine 5-10 mg/kg administered IP.** Acepromazine (1-2mg/kg) is optional and will lengthen recovery time. Lower doses of ketamine should be used if acepromazine is added.

Mouse Sample Recipe #1: Ket/Xyl at 100/10

	Drug stock concentration ¹ (mg/ml)	Volume used for cocktail	Volume of cocktail administered to mouse	Dose administered to mouse
Ketamine	100 mg/ml	1.0 ml	-	100 mg/kg
Xylazine	20 mg/ml	0.5 ml	-	10 mg/kg
Saline	Sterile, isotonic	8.5 ml	-	-
Combination Cocktail		10 ml total	0.10 ml / 10 g	-

Mouse Sample Recipe #2: Ket/Xyl at 80/6

	Drug stock concentration ¹ (mg/ml)	Volume used for cocktail	Volume of cocktail administered to mouse	Dose administered to mouse
Ketamine	100 mg/ml	0.8 ml	-	80 mg/kg
Xylazine	20 mg/ml	0.3 ml	-	6 mg/kg
Saline	Sterile, isotonic	8.9 ml	-	-
Combination Cocktail		10 ml total	0.10 ml / 10 g	-

Ketamine-Medetomidine (Domitor®) Cocktails^{4,5}

Recommended dosage: **Ketamine 50-75 mg/kg IP and Medetomidine 0.5-1.0 mg/kg IP**

Mouse Sample Recipe #1 for KETAMINE and MEDETOMIDINE

	Drug stock concentration ¹ (mg/ml)	Volume used for cocktail	Volume of cocktail administered to mouse	Dose administered to mouse
Ketamine	100 mg/ml	0.25 ml	-	50 mg/kg
Medetomidine	1.0 mg/ml	0.25 ml	-	0.5 mg/kg
Saline	Sterile, isotonic	4.5 ml	-	-
Combination Cocktail		5 ml total	0.1 ml / 10 g	-

Mouse Sample Recipe #2 for KETAMINE and MEDETOMIDINE

	Drug stock concentration ¹ (mg/ml)	Volume used for cocktail	Volume of cocktail administered to mouse	Dose administered to mouse
Ketamine	100 mg/ml	0.3 ml	-	75 mg/kg
Medetomidine	1.0 mg/ml	0.4 ml	-	1.0 mg/kg
Saline	Sterile, isotonic	7.3 ml	-	-
Combination Cocktail		8 ml total	0.2 ml / 10 g	-

Ketamine-Dexmedetomidine (Dexdomitor®) Cocktail^{4,5}

Recommended dose range: **Ketamine 50-75 mg/kg IP and Dexmedetomidine 0.5 – 1.0 mg/kg IP³**

Mouse Sample Recipe #1 for KETAMINE and DEXmedetomidine

	Drug stock concentration ¹ (mg/ml)	Volume used for cocktail	Volume of cocktail administered to mouse	Dose administered to mouse
Ketamine	100 mg/ml	0.2 ml	-	50 mg/kg
Dexmedetomidine	0.5 mg/ml	0.4 ml	-	0.5 mg/kg
Saline	Sterile, isotonic	7.4 ml	-	-
Combination Cocktail		8 ml total	0.2 ml / 10 g	-

Mouse Sample Recipe #2 for KETAMINE and DEXmedetomidine

	Drug stock concentration ¹ (mg/ml)	Volume used for cocktail	Volume of cocktail administered to mouse	Dose administered to mouse
Ketamine	100 mg/ml	0.3 ml	-	75 mg/kg
Dexmedetomidine	0.5 mg/ml	0.8 ml	-	1.0 mg/kg
Saline	Sterile, isotonic	6.9 ml	-	-
Combination Cocktail		8 ml total	0.2 ml / 10 g	-

¹ Compiled from ACLAM anesthesia text, lab animal formulary, and other sources.

² Check drug concentration on bottle. Start with the correct concentration.

Ketamine is packaged at 10, 50, or **100** mg/ml.

Xylazine may be purchased at either **20** mg/ml or 100 mg/ml.

³ Ket:Xyl cocktails should be redosed 1st time with ketamine only at ½ dose (mg/kg). If it is necessary to redose a 2nd time, use ½ dose of cocktail (ml/kg).

⁴ Medetomidine (Domitor®) concentration is 1.0 mg/ml, but drug is being phased out and replaced with Dexmedetomidine (Dexdomitor®) which is packaged at 0.5 mg/ml. They are both dosed at 0.5 mg/kg in mice.

⁵ Atipamezole (Antisedan®) is packaged at 5 mg/ml. It will reverse medetomidine and dexmedetomidine in rats and mice at a dose of 0.1 to 1.0 mg/kg SC or IP

Avertin: The typical mouse dose for "Avertin" is 0.2 ml/10 grams IP of a 1.25% solution. This equates to administration of approximately 240 mg/kg of Avertin.