

GUIDELINES - PREPARATION OF KETAMINE ANESTHESIA COCKTAIL FOR MICE

**ALL PREPARATIONS TO BE MIXED AND STORED IN A STERILE VIAL!*

**ALL DILUTIONS EXPIRE ONE MONTH AFTER MIXING!*

- **Ketamine/Xylazine** recipe based upon a dose range of 80-100 mg/kg Ketamine and 5-10 mg/kg Xylazine. Guidance below delivers 90 mg/kg Ketamine and 10 mg/kg Xylazine to mice.
- **Ketamine/Xylazine/Acepromazine** recipe based upon a dose range of 70-100 mg/kg Ketamine, 10-20 mg/kg Xylazine, and 2-3 mg/kg Acepromazine. Guidance below delivers 90 mg/kg Ketamine, 10 mg/kg Xylazine, and 2 mg/kg Acepromazine to mice. Use of a sterile vial is required (e.g. commercial injection vial, sterile falcon tube, etc...)
 - ✓ **Verify the concentration of your stock drugs prior to mixing**
 - Ketamine 100 mg/mL
 - Xylazine 20 mg/mL
 - Acepromazine 10 mg/mL

Ketamine/Xylazine		Ketamine/Xylazine/Acepromazine	
Ketamine	0.9 mL	Ketamine	0.9 mL
Xylazine	0.5 mL	Xylazine	0.5 mL
0.9% saline diluent	8.6 mL	Acepromazine	0.2mL
		0.9% saline diluent	8.4 mL

Use the following recommended labeling template and volume/weight **dose chart**:

- **Mouse Anesthetic Mix: Ketamine/Xylazine/(Acepromazine)**
- **Dosage and Route: 0.01 mL/g IP**
- **Delivers: 90 mg/kg K, 10 mg/kg X, (2 mg/kg A)**
- **Concentration: 9 mg/mL K, 1 mg/mL X, (0.2 mg/mL A)**

Mouse Weight	15 g	20 g	25 g	30 g	35 g
K/X/Ace	0.15 mL	0.2 mL	0.25 mL	0.3 mL	0.35 mL

Atipamazole Reversal Agent: 0.5mg/ml recipe based on a dose of 1mg/kg; stock drug: 5mg/mL mark up showing

- **Mix in sterile vial: .5ml (2.5mg) atipamezole and 4.5mL 0.9%saline diluent**

Mouse Weight	15 g	20 g	25 g	30 g	35 g
Atipamazole	0.03mL	0.04mL	0.05mL	0.06mL	0.07mL

GUIDELINES - PREPARATION OF KETAMINE ANESTHESIA COCKTAIL FOR RATS

**ALL PREPARATIONS TO BE MIXED AND STORED IN A STERILE VIAL*

**ALL DILUTIONS EXPIRE ONE MONTH AFTER MIXING!*

- **Ketamine/Xylazine** recipe based upon a dose range of 40-80 mg/kg Ketamine and 5-10 mg/kg Xylazine. Guidance below delivers 80 mg/kg Ketamine and 8 mg/kg Xylazine.
 - **Ketamine/Xylazine/Acepromazine** recipe based upon a dose range of 40-80 mg/kg Ketamine, 8 mg/kg Xylazine, and 4 mg/kg Acepromazine. Guidance below delivers 80 mg/kg Ketamine, 8 mg/kg Xylazine, and 4 mg/kg Acepromazine.
- ✓ **Verify the concentration of your stock drugs prior to mixing**
- Ketamine 100 mg/mL
 - **Xylazine 100 mg/mL**
 - Acepromazine 10 mg/mL

ketamine/xylazine		ketamine/xylazine/acepromazine	
Ketamine	8.0 mL	Ketamine	4.0 mL
Xylazine	0.8 mL	Xylazine	0.4 mL
0.9% saline diluent	1.2 mL	Acepromazine	2.0 mL
		0.9% saline diluent	3.6 mL

Use the following recommended labeling template and volume/weight dose chart:

Rat Anesthetic Mix: **Ketamine/Xylazine**

Dosage: 0.1 mL/ 100 g IP

Delivers: 80 mg/kg K, 8 mg/kg X

Concentration: 80mg/mL K, 8 mg/mL X

Rat Anesthetic Mix: **Ketamine/Xylazine/Acepromazine**

Dosage: 0.1 mL/ 50 g IP

Delivers: 80 mg/kg K, 8 mg/kg X, 4 mg/kg A

Concentration: 40 mg/mL K, 4 mg/mL X, 2 mg/mL A

Rat Weight	100 g	150 g	200 g	250 g	300 g
K/X	0.1 mL	0.15 mL	0.2 mL	0.25 mL	0.3 mL
K/X/Ace	0.2 mL	0.3 mL	0.4 mL	0.5 mL	0.6 mL

Atipamazole Reversal Agent: 0.5mg/ml recipe based on a dose of 1mg/kg; stock drug: 5mg/mL

- Mix in sterile vial: .5ml (2.5mg) atipamezole and 4.5mL 0.9%saline diluent

Rat Weight	100 g	150 g	200 g	250 g	300 g
atipamazole	0.1mL	0.15mL	0.2mL	0.25mL	0.3mL