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### 1. Description

- Components** 850 µL ExiTron™ U,  
CT contrast agent (iopromide)  
or  
5 x 850 µL ExiTron™ U,  
CT contrast agent (iopromide).
- Capacity** 5 x 100 µL injections  
or  
25 x 100 µL injections.

**Product format** ExiTron U is supplied as a sterile isotonic solution containing 120 mg iodine per mL.

**Appearance** Clear, colorless liquid.

**Storage** Store protected from light at 2–8 °C. Do not freeze. The expiration date is indicated on the vial label.

For laboratory and animal research use only. **Warning: Not for human or animal therapeutic or diagnostic use. Make sure to comply with all laws and regulations governing research on animals.**

#### 1.1 Background information

ExiTron U is a non-ionic iodine-based contrast agent of low molecular weight specifically formulated for pre-clinical computed tomography (CT).

It shows strong X-ray absorption due to its covalently bound iodine atoms.

Upon intravenous injection, ExiTron U is rapidly distributed in the extracellular space. No significant plasma protein-binding can be observed. ExiTron U is excreted unchanged via glomerular filtration (kidneys).

### 1.2 Applications

ExiTron U is indicated for use in CT of small animals, for example mice, to facilitate the visualization of the vasculature. Examples include contrast-enhanced angiography.

### 1.3 Physico-chemical properties

Molecular weight: 791 g/mol.

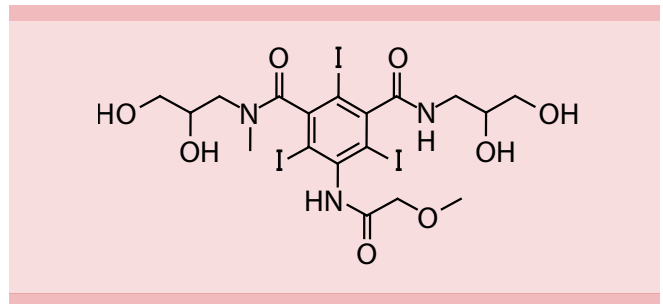


Figure 1: Structural formula of iopromide.

### 1.4 Requirements

- ☞ Sterile syringes and needles (27–30 G)  
**Note:** To allow sufficient volume for 5 x 100 µL injections per vial, the syringe/needle dead volume should be kept below 70 µL.  
**Tip:** Use insulin or tuberculin syringes.
- ☞ 70 % ethanol

## 2. Protocol

### 2.1 Preparation

- ☞ Read the entire protocol before starting.  
**Tip:** For optimum device settings perform initial studies in a suitable imaging phantom.
- ☞ The contrast agent is ready for injection as provided.
- ☞ For a mouse weighing 20–30 g the typical injection volume is 100 µL corresponding to a dose of 480 mg iodine/kg body weight (for a 25 g mouse).  
**Note:** Standard animal-handling procedures and local regulations must be followed.

## 2.2 Injection

- Disinfect the septum with 70% ethanol. Let septum dry.
- Warm the mouse tail to dilate the veins and enhance their visibility.
- Inject ExiTron U (typically 100 µL) via the lateral tail vein of the mouse.

**Note:** ExiTron U contains no preservatives. Avoid microbial contamination and discard any unused material after 24 hours.

## 2.3 Imaging

- Follow the imaging protocol as recommended by the manufacturer of your imaging system.
- Taking a pre-contrast image is recommended.
- Begin imaging immediately after injection.

Find examples of ExiTron U-enhanced CT images at [www.viscover.berlin](http://www.viscover.berlin).

## 3. References

- Seo, Y. *et al.* (2008) In vivo microCT imaging of rodent cerebral vasculature. *Phys. Med. Biol.* 53: 99–107.
- Dawson, P. *et al.* (1984) Iopromide. A new non-ionic contrast medium. *Acta Radiol. Diagn. (Stockh.)* 25: 253–256.
- Muetzel, W. and Speck, U. (1983) Pharmacological profile of iopromide. *Am. J. Neuroradiol.* 4: 350–352.

## 4. Related products

ExiTron™ V	# 130-095-283, # 130-095-284
ExiTron™ P	# 130-095-144, # 130-095-145
ExiTron™ nano 6000	# 130-095-146, # 130-095-147
ExiTron™ nano 12000	# 130-095-698, # 130-095-700
ExiTron™ MyoC 8000	# 130-095-701, # 130-095-702

A comprehensive product portfolio for the imaging modalities MRI, CT, US, OI, SPECT, and PET is available at [www.viscover.berlin](http://www.viscover.berlin).

## Warranty

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