viscover

ExiTron™ V

CT contrast agent for pre-clinical imaging

1 vial (5 x 100 µL injections)	# 130-095-283
5 vials (25 x 100 µL injections)	# 130-095-284

Contents

1. Description

Components **850 µL ExiTron™ V,**
CT contrast agent (iodixanol)
or
5 × 850 µL ExiTron™ V,
CT contrast agent (iodixanol).

Capacity **5 × 100 µL injections**
or
25 × 100 µL injections.

Product format ExiTron V is supplied as a sterile isotonic solution containing 160 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 V is a non-ionic, dimeric, hexaiodine-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 V shows low plasma protein-binding and is rapidly distributed in the extracellular space. ExiTron V is mainly excreted unchanged via glomerular filtration (kidneys).

1.2 Applications

ExiTron V 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: 1550 g/mol.

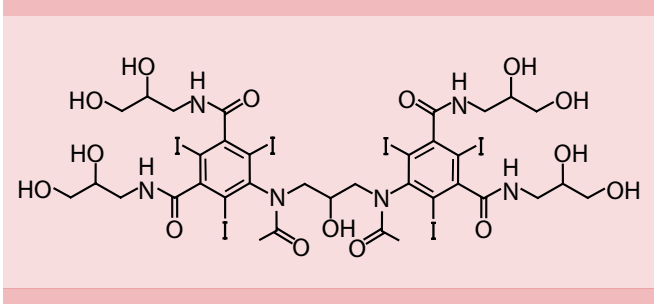

Figure 1: Structural formula of iodixanol.

1.4 Requirements

- Sterile syringes and needles (27–30 G)
  Note: To allow sufficient volume for 5 × 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 640 mg iodine/kg body weight (for a 25 g mouse).
  Note: Standard animal-handling procedures and local regulations must be followed.

140-002-899.03

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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 V (typically 100 µL) via the lateral tail vein of the mouse.

  Note: ExiTron V 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 V-enhanced CT images at **www.viscover.berlin**.

3. References

1. Heglund, I. F. *et al.* (1995) Preclinical pharmacokinetics and general toxicology of iodixanol. Acta Radiol Suppl 399: 69–82.
2. Larsen, L. E. *et al.* (1995) Neural tolerability of iodixanol in mice and dogs after single and repeated intracisternal administration. Acta Radiol Suppl 399: 238–243.

4. Related products

ExiTron™ U	# 130-095-142, # 130-095-143
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**.

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