GadoSpin™ M
MRI agent for pre-clinical imaging

1 vial (5 x 100 µL injections) # 130-095-134
5 vials (25 x 100 µL injections) # 130-095-135

GadoSpin M does not penetrate the intact blood-brain barrier and is, in fact, used in clinical practice for imaging of brain tumors.

1.2 Applications
GadoSpin M is indicated for use in MRI of small animals, for example mice, to facilitate the visualization of the extracellular space. Examples include disruption of the blood-brain barrier and fenestration of blood vessels in inflamed tissue or tumors.

1.3 Physico-chemical properties

<table>
<thead>
<tr>
<th>Molecular weight</th>
<th>Relaxivity (37 °C, 1.5 T)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>in plasma</td>
</tr>
<tr>
<td>938 g mol⁻¹</td>
<td>( r_1 = 4 \text{ L mmol}^{-1}\text{ s}^{-1} )</td>
</tr>
</tbody>
</table>

![Figure 1: Structural formula of Gd-DTPA.](image)

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 imaging 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 100 µmol Gd/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 GadoSpin M (typically 100 µL) via the lateral tail vein of the mouse.
  
  **Note:** GadoSpin M contains no preservatives. Avoid microbial contamination and discard any unused material after 24 hours.

2.3 Imaging

- Imaging can be performed on a multitude of devices at all commonly used field strengths including high-field MRI.
- GadoSpin M is particularly suited for $T_1$-weighted MRI but can also be detected by $T_2$- and $T_2^*$-weighted sequences.
- Taking a pre-contrast image is recommended.
- Begin imaging immediately after injection.


3. References


4. Related products

<table>
<thead>
<tr>
<th>Product</th>
<th>Order no.</th>
<th>Order no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GadoSpin™ P</td>
<td># 130-095-136, # 130-095-137</td>
<td></td>
</tr>
<tr>
<td>GadoSpin™ F</td>
<td># 130-095-162, # 130-095-163</td>
<td></td>
</tr>
<tr>
<td>GadoSpin™ D</td>
<td># 130-095-164, # 130-095-165</td>
<td></td>
</tr>
<tr>
<td>FeraSpin™ R</td>
<td># 130-095-138, # 130-095-139</td>
<td></td>
</tr>
<tr>
<td>FeraSpin™ XS</td>
<td># 130-095-140, # 130-095-141</td>
<td></td>
</tr>
<tr>
<td>FeraSpin™ S</td>
<td># 130-095-166, # 130-095-167</td>
<td></td>
</tr>
<tr>
<td>FeraSpin™ M</td>
<td># 130-095-168, # 130-095-169</td>
<td></td>
</tr>
<tr>
<td>FeraSpin™ L</td>
<td># 130-095-170, # 130-095-171</td>
<td></td>
</tr>
<tr>
<td>FeraSpin™ XL</td>
<td># 130-095-172, # 130-095-173</td>
<td></td>
</tr>
<tr>
<td>FeraSpin™ XXL</td>
<td># 130-095-174, # 130-095-175</td>
<td></td>
</tr>
</tbody>
</table>

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

The products sold hereunder are warranted only to be free from defects in workmanship and material at the time of delivery to the customer [nanoPET Pharma GmbH](http://www.nanopet-pharma.com). nanoPET Pharma GmbH makes no warranty or representation, either expressed or implied, with respect to the fitness of a product for a particular purpose. There are no warranties, expressed or implied, which extend beyond the technical specifications of the products. nanoPET Pharma GmbH's liability is limited to either replacement of the products or refund of the purchase price. nanoPET Pharma GmbH is not liable for any property damage, personal injury or economic loss caused by the product.

Unless otherwise specifically indicated, all [nanoPET Pharma](http://www.nanopet-pharma.com) products and services are for research use only and not for diagnostic or therapeutic use.

GadoSpin, FeraSpin, and Viscover are trademarks of [nanoPET Pharma GmbH](http://www.nanopet-pharma.com).

Manufacturer: [nanoPET Pharma GmbH](http://www.nanopet-pharma.com), Berlin, Germany.

Copyright © 2017 [nanoPET Pharma GmbH](http://www.nanopet-pharma.com). All rights reserved.

[140-002-862.03]