

Glomerular Filtration Rate - RenalRATE™

The most accurate method to measure glomerular filtration rate (GFR) is to track the renal clearance of an ideal filtration marker. Therefore, BioPAL labeled an ideal filtration marker with a stable isotope to provide researchers with an easy-to-use and nonradioactive method to measure GFR. This innovative, patent pending product-line is called Renal**RATE** and is a complex of diethylenetriamine pentaacetic acid (DTPA). The product is provided autoclaved and ready-to-use. Renal**RATE** is offered labeled with one of three different stable isotopes: samarium, lutetium, and europium. This product-line provides researchers with the added advantage of being able to obtain a second or third GFR measurement within a short period of time of the first measurement (less than two days) or provides the opportunity to obtain one measurement in the event of a misadministration of the first label.

Renal**RATE** is designed for use as a single injection, however the product can support most protocols to measure GFR. The product-line is used in the same manner as traditional radioactive markers, such as ⁵¹Cr-EDTA or ¹²⁵I-iothalamate. The only difference is that BioPAL performs the assay of the stable isotope marker. At the close of the experiment, blood and/or urine samples are collected and placed in BioPAL's tracer-free polypropylene samples vials and then sent to BioPAL for analysis, which uses neutron activation technology for the measurement of marker content.

Important - **NOT FOR HUMAN USE**

Renal Functional Probes

The recommended dose is 0.4 ml/kg. In addition, we recommend using the reagent in the following order: samarium, lutetium and europium. On average, 200 rat studies or 10 canine studies can be performed with one 20 ml vial.

Catalog

Number

KD-10A20	Renal RATE ™ Samarium.....	\$ 400.00
	A vial containing 20 ml of samarium-DTPA at pH 7.4.	
KD-10E20	Renal RATE ™ Lutetium	\$ 400.00
	A vial containing 20 ml of lutetium-DTPA at pH 7.4.	
KD-10K20	Renal RATE ™ Europium.....	\$ 400.00
	A vial containing 20 ml of europium-DTPA at pH 7.4.	

Support for the development of this product-line was provided in part by a grant from the NIH-SBIR Program (DK57502).

