Volume: 25 ml

**Sheep Anti-Rat Glomerular Basement Membrane (GBM) Serum (PTX-001AGBM)**

*For the Induction of Passive Anti-GBM Nephritis*

**Materials supplied:**

Anti-GBM Serum, 25 ml, in 0.02 M phosphate buffered saline PBS, pH 7.3. Store at −20 C or below. Product has been heat treated at 56 °C for 30 min. Avoid repeated freeze-thaw. Slight precipitate may form when thawed, centrifuge x 3,000-5,000 RPM, 30 minutes before injection. Not validated in mice.

**Directions for use:**

Each bottle contains sufficient antibody to induce passive anti-GBM nephritis in at least 25 rats* (175-200 gm) when used according to the instructions below. Please read carefully before starting the procedure.

*Injection of anti-GBM Serum:* Anesthetize rats and inject anti-GBM serum into a tail vein over a 15 second period. Production of disease is dose dependent, it is important that the complete dose of antibody is delivered (recommended dose of 0.4-0.5 ml/100 gm body weight). Due to variability in antisera lots, source of rats, and investigator preferences, we recommend that dose-response studies be performed to establish the desired severity of disease from each lot of antisera.

**Description of Renal Disease:**

**Heterologous disease:** Linear deposits of heterologous sheep IgG are noticeable in glomerular basement membrane by immunofluorescence within minutes increasing in intensity by 3-5 days after injection of a single bolus of anti-GBM. Rat C₃ also localizes in a linear pattern and proteinuria develops after 24 hours.

**Autologous disease** becomes noticeable after 8-10 days following administration of anti-GBM antibody evidenced by increased proteinuria and glomerular localization of rat (autologous) IgG in a linear pattern by immunohistochemistry (Figure 1). By 3 weeks, proteinuria can be expected to reach over 200 mg/24 hours and glomerular lesions (Figure 2) are apparent, increasing in severity over time leading to glomerulosclerosis.

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* Sprague-Dawley strain recommended. Other strains not tested.
* Chronic disease not verified using Probetex anti-GBM antibody.