

Volume: 25 ml

Lot# \_\_\_\_\_

## Sheep Anti-Rat Thymocyte (Thy-1) Serum (PTX-003S)

### *For the Induction of Mesangial Proliferative Glomerulonephritis<sup>#</sup>*

**Materials supplied:**

Anti-thymocyte (ATS) Serum, in 0.02 M phosphate buffered saline PBS, pH 7.4. Store at -20 C or below. Avoid repeated freeze-thaw. *Slight precipitate may form when thawed, centrifuge X 3,000-5,000 RPM , 30 minutes before injection..*

Not effective in mice (mice mesangial cells do not express Thy-1 antigen).

**Materials needed:**

Approved protocol from your Institutional Animal Care and Use Committee (IACUC)

Plastic syringes, 1 - 3 ml

27 ga needles

25 Male Sprague-Dawley rats (175-200 gm body wt)

Anesthetic: (consult your institutional veterinarian)

**Directions for use:**

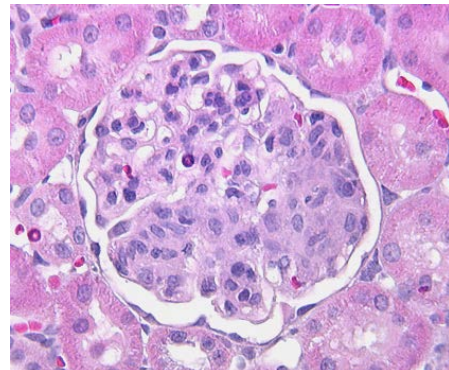
This package contains sufficient antibody to induce mesangioproliferative glomerulonephritis in 25 rats (175-200 gm, 0.5 ml/100 gm, body wt) when used according to instructions. Please read carefully before starting.

*Injection of anti-Thymocyte serum:* Anesthetize rats according to your IACUC guidelines. Inject appropriate volume of ATS into a tail vein over a 15 second interval. Return the rat to its cage. Severity of disease is dose dependent. If larger rats are required, adjust volume proportionately. Also, increase dose if greater severity of disease is desired. It is important that the complete dose of antibody is delivered properly. 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.

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**Description of Renal Disease:**

Mesangiolytic occurs shortly after injection of antibody (1). Mesangioproliferative lesions begin 3-7 days after injection (1). Lesions resolve within several weeks after injection of antibody. A progressive glomerulosclerosis and fibrosis can be induced by multiple injections of ATS several days apart (1,2)\*. Apoptosis has also been observed early (3,4) and late (5) in the progression of anti-Thy-1 nephritis providing a model to study mechanisms of programmed cell death in renal disease\*.



Glomerulus 5-days after injection of ATS showing mesangial proliferative lesions.

1. Yamamoto T. Wilson CB. *Kidney International*. 32:514-25, 1987
2. Yamamoto T. Noble NA. Miller DE. Border WA. *Kidney International*. 45:916-27, 1994
3. Bagchus WM. Jeunink MF. Elema JD. *American Journal of Pathology*. 137:215-23, 1990
4. Shimizu A. Kitamura H. Masuda Y. Ishizaki M. Sugisaki Y. Yamanaka N. *Kidney International*. 47:114-21, 1995
5. Baker AJ. Mooney A. Hughes J. Lombardi D. Johnson RJ. Savill J. *Journal of Clinical Investigation*. 94:2105-16, 1994
- 6.

<sup>#</sup> induces a diffuse GN when used according to instructions

\* Reported in the literature but Probetex has not tested this product for this application.

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