PG-PS 100P(group A streptococcus)

Cat. No. COP30 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	
Description	PG-PS 100P consists of purified peptidoglycan-polysaccharide polymers which are isolated from the sonicated cell wall of Streptococcus pyogenes, Group A, D58 strain. The peptidoglycan is the primary immunogenic moiety. The polysaccharide, when bound to this peptidoglycan moiety, allows for the chronic inflammation seen in animal models by protecting this moiety from degradation. The PG-PS 100P is supplied as a white, opalescent liquid suspension in sterile 0.85% saline. The rhamnose concentration of the product is 5 to 8 mg/ml and the MW range of the product is 5 x 107 daltons.
Precautions	The PG-PS 100P material must be stored and handled in an aseptic manner to avoid product contamination. Such contamination may affect animal model results. For Research Use Only. Not for use in diagnostic procedures.
Storage	2 - 8°C. Discard any reagent which has become obviously contaminated or discolored.
IntendedUse	PG-PS 100P is used in various animal models for the induction of acute inflammatory responses which can evolve into a remittent, chronic, inflammatory response. Experimental chronic diseases induced by PG-PS in rats include chronic, remittent, erosive arthritis, granulomatous enterocolitis (resembling Crohn's disease), granulomatous hepatitis, intestinal hemorrhage, carditis and vasculitis. PG-PS induces animal responses which are representative of naturally caused inflammatory disorders. PG-PS 100P is used most commonly in the rat intra-articular (IA) injection

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

	model for arthritis, described below.
Instructions for Use	Procedure for Arthritic Rat Model Intra-peritoneal Injec-tion. Materials Provided: PG-PS 100P, 5 - 8 mg rham-nose/ml; Materials Required: Lewis Strain Rats, female; 150 - 200 gm each; Sterile 0.85% saline; Balance; Vor-texer; Caliper; 26 gauge needles; Pipettor1. Randomly divide the rats into control and assay groups as required for the model. Label each group of rats appropriately. Control groups are defined as those rats receiving saline (negative control), and those rat receiving PG-PS 100P (positive control) with no other intervention or treatment such as anti-inflammatory drugs. Assay groups are defined as rats receiving PG-PS 10P with intervention.2. Weigh each rat in each group and determine the aver-age body weight of each group. This average must be between 150 - 200 gm.3. Measure each rat's ankle (maximal lateral) individu-ally with a caliper to determine the baseline ankle measurement. Measure both left and right ankles. Each ankle should be measured 3 times and averaged.4. Vortex the PG-PS 10S for 30 seconds to thoroughly mix the material. Suspensions which appear to no longer be smooth or uniform (aggregated suspension) should be sonicated at low energy levels for 10-20 se-conds with a probe type sonicator prior to injection.5. Dilute the PG-PS 100P to a concentration of 400 - 500 µgm/ml using sterile 0.85% saline.6. Anesthetize each rat in the assay and positive con-trol groups.7. Administer 10 µl of diluted PG-PS 100P to each ankle in the rats in both the assay and positive control groups using an intra articular (IA) injection route, for a total dose of 4 – 5 µgm rhamnose per ankle. The IA injection is Delivered through the Achilles tendon just proximal to the calcaneus. A pipettor with a 26 gauge tuberculin needle attached to a modified tip works well for this type of injection.
Limitations of theProcedure	Certain animals may not respond to the initial PG-PS 100P injection and are termed non-responders. This is typically due to the placement of the 100P material, and is not reflective of the quality of the product. Typically, 20% or less should be non-responders (in the positive control group) to consider the placement technique valid. Remove non-responders from the protocol after the initial 6 days post-injection and

	do not include this data in calculat-ing averages or percent response.

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