**Supplemental Figure 1. Whole lung imaging of fibrosis.** C57Bl/6NCr mice were exposed to 5x6 Gy of thoracic IR and treated with rPAI-123 or vehicle. A) Masson trichrome staining of lung at 19 weeks after IR. The lungs of vehicle-treated mice exhibited extensive foci of subpleural fibrosis while those of rPAI-123 treated mice exhibited minimal fibrosis. Collagen: blue, nuclei: purple, cytoplasm/epithelia: pink. (B) In separate tissue sections, staining was performed in the same fashion as the Masson Trichrome stain, however hematoxylin and acid fuscin were omitted, resulting in a pure collagen stain (blue).

**Supplemental Figure 2. Survival of Mice treated with rPAI-123 or vehicle after irradiation.** C57Bl/6NCr mice were exposed to 5x6 Gy of thoracic IR and treated with rPAI-123 or vehicle (N=8 mice per group). Mice were followed until 19 weeks for tissue collection. Moribund mice were euthanized.

**Supplemental Figure 3. Densitometry of Western Blots.** The relative expression of Fibrin polymers (A), monomers (B), and degradation products was assessed with densitometry of western blots. The expression of each was normalized to actin. A similar analysis was performed for MMP-3 (D).