I. Purpose: To analyze hyalins in fibrosis, we examined the localization of novel extracellular matrix component which had been prepared from newborn calf skin.

II. Materials and Methods: Biopsy specimens from 15 scleroderma patients and 22 normal individuals were examined immunohistochemically with alkaline phosphatase staining kit using antibodies which had been reported previously.

III. Results: Patterns and intensities of immunohistochemical stains showed the protein coexisted with collagen fibril, and the intensities of stains in scleroderma were higher than those of normal controls. The protein was more expressed in hyalinizing areas than sclerotic regions.

45 kD protein is also stained in the endothelial cells. This staining pattern was observed in 30% of all the cases. No difference in the pattern, frequency of staining was seen between scleroderma patients and normal individuals, or aged and younger generations.

IV. Discussion: These data indicate that 45 kD protein is surely involved in dermal sclerosis. This protein may play an important role in fibrillogenesis. Positive stain in the endothelial cells may reflect the presence of family.