SUPER SERUM™ ADVANCE+ STUDY

fibroblast induction study

IMPROVEMENT IN COLLAGEN SYNTHESIS

STUDY OBJECTIVE The ability of SUPER SERUM™ ADVANCE+ to induce fibroblasts to synthesize collagen was evaluated.

STUDY DESIGN Human donor fibroblasts between the ages of 20 and 40 were cultured. The control samples were run without product treatment. The amount of collagen in both the treated and control samples was quantified using a collagen standard assay.

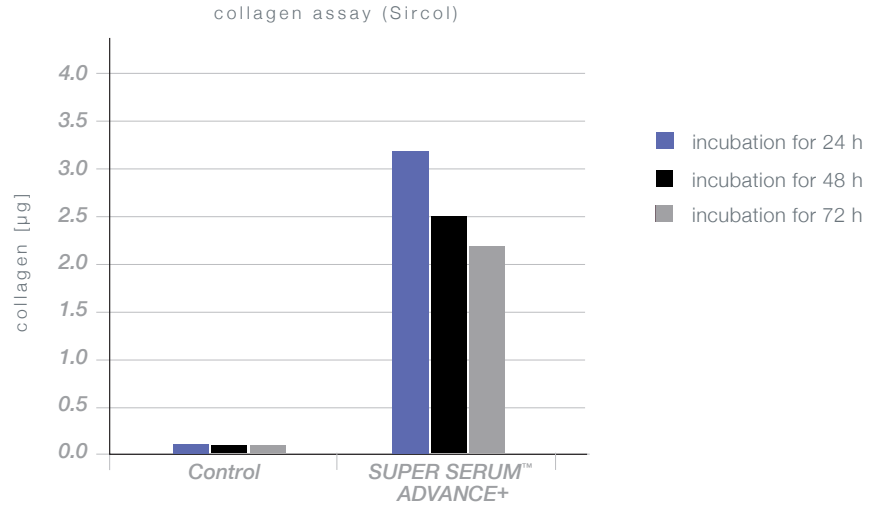
SIGNIFICANCE OF STUDY Production of collagen in fibroblasts is essential for all types of wound healing. With aging, the amount of functional collagen synthesized by fibroblasts decreases. Collagen networks provide resistance against mechanical stress and maintain tensile integrity of the skin.

The product studied, SUPER SERUM™ ADVANCE+, contains 3 substances that impact collagen synthesis. Copper is a cofactor in the enzymatic synthesis of collagen. L-Ascorbic acid is also required for collagen synthesis. HGF is a growth factor necessary for growth and differentiation of epithelial cell types.

Until now, it was impossible to combine copper-containing substances with L-ascorbic acid. These substances have been combined for the first time in SUPER SERUM™ ADVANCE+. The copper in this product is complexed with a tripeptide, a growth factor necessary for growth and development of all epithelial cell types, including skin. The innovative combination of these 3 substances, i.e. ADVANCE+ L-ascorbic acid, copper, and the tripeptide growth factor, has potential for synergistic improvement on the synthesis of collagen by human fibroblasts.

RESULTS AND CONCLUSIONS SUPER SERUM™ ADVANCE+ markedly improved synthesis of collagen by human fibroblasts compared to the control. After 24 hours incubation, the amount of collagen in the treated sample was 3.2 mcg/100mcl and in the control sample was 0.1 mcg/100mcl.

EFFECTS ON COLLAGEN SYNTHESIS USING SUPER SERUM™ ADVANCE+



INNOVATIVE SKINCARE® | iS CLINICAL® 818.638.8758 818.638.8768 FAX www.iSCLINICAL.com