

Scientific In-Vitro Study 2015

Stimulation of Human Skin Dermal Cells with OysterMax®

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Introduction

Skin changes are among the first most visible signs of aging. The appearance of reduced skin firmness and elasticity is associated with behavioural changes in skin cells and their surrounding structural supports. Fibroblast cells in the skin dermis layer are responsible for producing collagen among other proteins involved in maintaining skin firmness and elasticity. As skin ages, fibroblasts do not produce as much collagen as younger skin and its ability to be replaced decreases. Among the many proposals to combat the appearance of skin ageing, the most common is to stimulate dermal fibroblast cell growth over a limited time to produce more collagen and structural support proteins. The aim of this study was to determine if OysterMax® could stimulate human dermal fibroblast growth.

Study Method

Normal primary human skin dermal fibroblasts derived from adult female skin dermis were cultured in the laboratory by scientists for in-vitro testing in the appropriate cell medium. Cells were exposed to OysterMax® for 24 hours. Control cells were grown in medium with no supplements. Assessment of effects on cell growth was performed with the MTT assay.

Study Results

OysterMax® supplementation significantly stimulated dermal fibroblast cell growth compared to the control (figure 1).

This promotion in cell growth by OysterMax® can lead to increased collagen production as dermal fibroblasts are responsible for producing collagen and structural support proteins which are essential for maintaining skin firmness and elasticity.

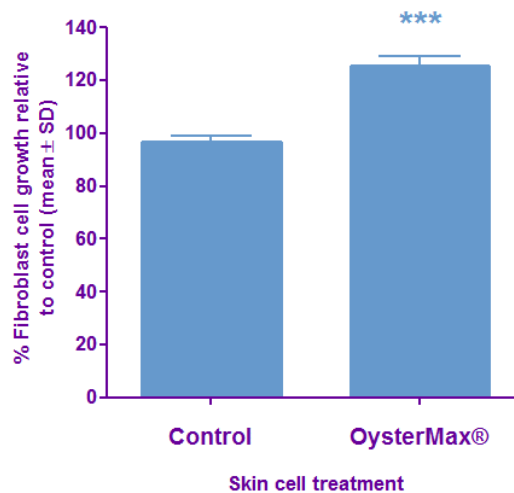


Figure 1. Human dermal fibroblast cells were treated with 12.5 µg/mL OysterMax® for 24 hours. Control cells were grown with no supplements and cell proliferation measured with MTT assay, (n=4, p <0.001).