



PhytoCellTec™ Goji Stem cell activation for a V-shaped face



PhytoCellTec™ Goji is based on a plant stem cell culture of a goji seedling that vitalizes mesenchymal stem cells to ensure an improved V-shaped face.

The issue

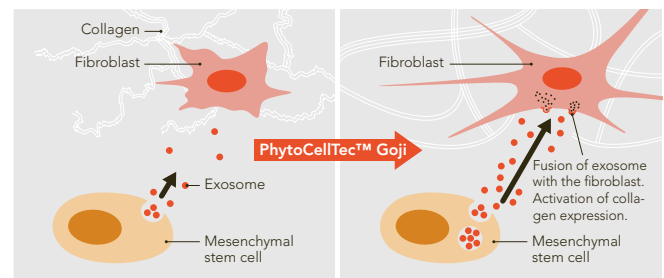
As we age, the production of collagen and elastin is reduced, which results in sagging skin that can most notably be observed at the face contours of the jawline. In addition, mesenchymal stem cells are also aging and this reduces their regenerative properties.

The solution

Mesenchymal stem cells have been shown to improve collagen production and regenerate the skin, for example during wound healing. These processes are mediated by vesicles known as exosomes which are produced and secreted by these stem cells. Exosomes are small, approximately 100nm vesicles that are surrounded by a membrane which contains messenger molecules such as RNAs, proteins and lipids. Exosomes derived from mesenchymal stem cells have been shown to have a beneficial effect on other cell types such as fibroblasts and are currently being heavily investigated for their diagnostic and therapeutic purposes.

The benefit

PhytoCellTec™ Goji revitalizes mesenchymal stem cells and boosts their exosome production. This results in the improved production of extracellular matrix components such as collagen and elastin by fibroblasts. Therefore, one can support the dermal rejuvenation of the skin by stimulating mesenchymal stem cells in order to produce more exosomes. This will in turn lead to a reduced wrinkle appearance, less sagging and thus an improved V-shaped face.



Exosomes from mesenchymal stem cells rejuvenate fibroblasts.



The plant

The plants of the superfruit Goji (*Lycium barbarum*) are native to Southeast Europe and Asia. They belong to the nightshade family – just like tomatoes and potatoes – and they grow up to 3 meters high. The red-orange goji berries that are harvested from this plant are one of the most famous superfruits. Nowadays, goji berries are eaten all over the world, mostly in dried form, and there are various goji berry supplements on the market with the reported effect claims ranging from anti-aging, immune boosting and energizing to improved memory.

INCI (EU/PCPC) Declaration: Lycium Barbarum Callus Culture Extract (and) Isomalt (and) Lecithin (and) Aqua/Water

Study results

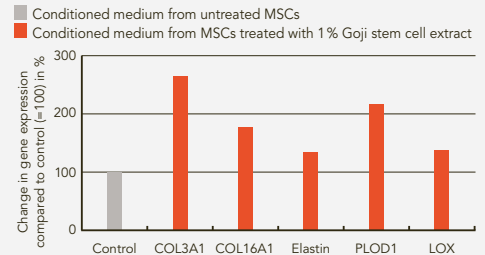
Stimulation of Extracellular Matrix Genes through Cell-to-Cell Communication

S-799



Cell line: Human mesenchymal stem cells (MSCs)
Test compound: 1% Goji stem cell extract
Treatment: Human MSCs were treated with 1% Goji stem cell extract for a period of 72h. The supernatant was used to treat fibroblasts.
Parameters: Gene expression of several ECM factors

→ Increases expression of collagen and elastin in fibroblasts



Improvement of Wrinkle Depth

S-755



Volunteers: 23 Caucasian women aged between 41 and 69 years with signs of photoaging
Test compound: 0.4% PhytoCellTec™ Goji, placebo
Treatment: Half-sided application on the face twice daily for 56 d
Parameters: Change in wrinkle depth (PRIMOS lite)

→ Average decrease in wrinkle depth of 11 % compared to the placebo. Visibly improvement of fine wrinkles below the eyes as well as deeper lines.



Improvement of Oval Face Shape

S-794



Volunteers: 67 Caucasian women aged between 39 and 70 years
Test compound: 0.4% PhytoCellTec™ Goji
Treatment: Application on the entire face and neck twice daily for 28 d
Parameters: Size of the neck/submandibular triangle area to de-terminer the facial sagging and oval face shape with image analysis of Visioface pictures

→ Significant improvement of the oval face shape



In Addition

S-755/S-762



Improvement of Skin Density in Photo-Aged Skin: Significantly increased skin density by 6% after 28 days compared to initial conditions, reduction of the so-called subepidermal low-echogenic bands (SLEB) in photo-aged skin.



Increase in Exosome Production: Maintains stemness and boosts exosome production in mesenchymal stem cells.

Recommended use level: 0.4–1 %

Characteristics: Powder, water-soluble, without preservatives and alcohol

Applications: Tightening and contouring serums for face and neck, collagen boosting formulations, contouring masks, lifting and firming anti-aging formulas

Benefits PhytoCellTec™ Goji

- Stimulates exosome signaling
- Increases collagen and elastin expression
- Improves skin density
- Tightens facial contours
- Minimizes fine wrinkles and deeper lines
- Sustainable production of raw material