



miessence®

aloe vera

Aloe Vera Biologic Activity

Miessence's Aloe Vera supplier is the leading Aloe Vera supplier to conduct and publish in vitro research to determine biological activity on its own Aloe Vera. The following studies using the Miessence Aloe Vera speak for themselves. No theories, no internal standards, no assumptions, no chemical tests. Just the living proof!

The process for growing living skin in vitro called the Living Skin Equivalent™ (LSE) was developed by Organogenesis, Inc. (OI) and marketed under the name Test skin™. This system was developed in order to conduct certain types of toxicity testing on compounds in vitro, rather than in animal models. Samples of our Aloe Vera were submitted to determine toxicity using the LSE™ method. The Aloe submitted was not only completely non-toxic to the LSE™, but was in fact found to stimulate basal keratinocyte (skin cell) growth almost fourfold. The study concluded that our Aloe Vera induced an increase in basal keratinocyte proliferation.

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"The increase in labeling index (LI) with Aloe Vera Gel was linear in a dose/concentration manner", as indicated in the Graph. The research indicates that in concentrations of 30% through 100% of Aloe Vera Gel, the LI increases in a linear, dose/concentration related fashion.

In an attempt to reproduce the results obtained by OI, samples of processed Aloe Vera Gel were also submitted to In Vitro Alternatives, Inc. (IVA), another independent testing facility skilled in the use of LSE™. The summary/conclusion from IVA states, "This test material appears to have caused a stimulation of cellular activity, such that this material enhances cellular activity and viability". Based on the conclusions of IVA, our supplier recognized the need for additional research on the subject of Aloe Vera gel and its ability to enhance cell growth.

Upon conclusion of this study, samples of our Aloe Vera Gel were submitted to the Illinois Institute of Technology Research Institute (IITRI), a third testing facility, also skilled in working with the LSE™, to determine if another independent source could reproduce the acceleration of basal keratinocyte growth. A similar accelerated growth pattern was again demonstrated.

Summary

In all three cases of in vitro research by Organogenesis, IVA, and IITRI, our Aloe Vera proved to be nontoxic to basal keratinocytes. In addition, in all three studies, our Aloe Vera gel proved to accelerate basal keratinocyte growth.

The research indicates that the higher the concentration of our Aloe Vera gel, the larger the increase in basal keratinocyte regeneration. It is important to note the linear relationship between Aloe concentration and its effect on basal cell proliferation activity, which is significant.

Aloe Vera Skin Cell Growth Promotion

