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EXPERIMENTAL RESEARCH:

NEW *IN-VITRO* ASSAY

TO EVALUATE "MELTING FAT" FORMULATIONS

BACKGROUND

There is very little scientific studies sustaining the way of use the "melting fat " formulations containing different concentrations of phosphatidylcholine, sodium deoxycholate, carnitine and their combinations.
New in-vitro assay has been developed.

MATERIALS & METHOD

Fresh samples of human fat extracted during liposuction were mixed with investigated solutions and incubated (50% m/v) at 37ºC. The effect was evaluated with 3 independent scales. The amount of supernatant, resulting from lipolytic effect on adipocytes, was measured. Colorimetric sulfo-phospho-vanillin method was used for quantitative analysis of total free lipids released after incubation.

Figure 1
Visual aspect of the adipose tissue after incubation with test products before (A) and after (B) the autoclave cycle.

RESULTS

New method of quantitative evaluation of melting fat formulations or ingredients has been developed and validated within the present study.

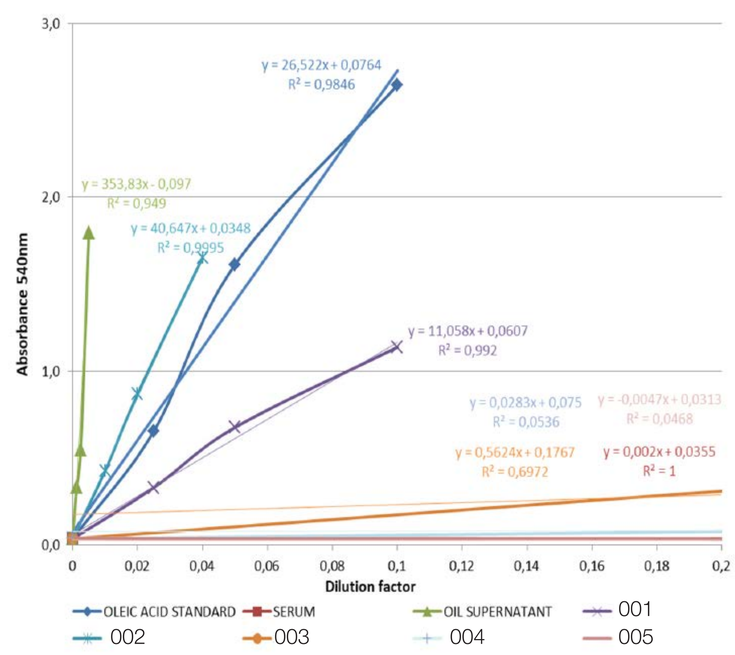

Figure 2. Absorbance linearity of different concentrations of the test products in order to determine lipid concentration left in the aqueous phase. The amount of triglycerides was determined using a standard of 50mg/ml of oleic acid.

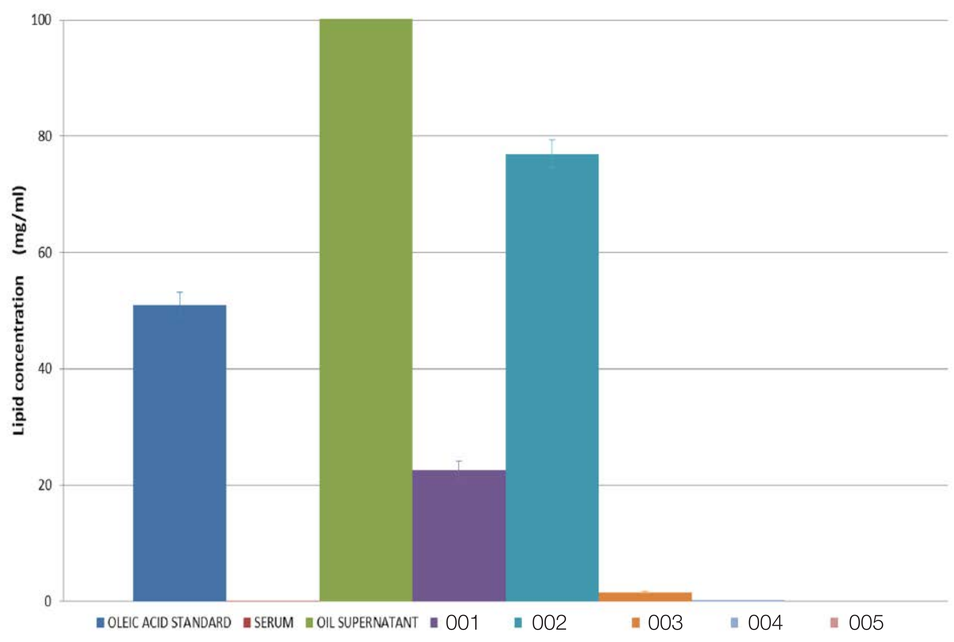

Figure 3. Results of the sulfo-phospho-vanillin (SPV) method. The amount of lipids (triglycerides) released after incubation with each test product is shown. Untreated oil supernatant was used as a positive control. As results exhibit, 001 and 002 are the products showing the highest lipolytic effects.

CONCLUSION

This novel in-vitro study allows to analyze any actives and ready products pretended to act on the fat tissue and helps to investigate and study the most suitable ingredients and/or their combinations which could be recommended for that purpose.
Result of this research will be published.

Thanks to **Skin Tech Pharma Group SL** for publishing the clinical research · **skintechpharmagroup.com**
Scientific supervision: Dr P. Deglesne - PhD
The author report no conflicts of interest in this work
24 03 2018 SP_009