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Development of a skin-friendly microemulsion for dermal allergen-specific immunotherapy

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Abstract

Due to their role in immune responses, the skin dendritic cells (i.e. epidermal Langerhans cells and dermal dendritic cells) have become of great interest to researchers in the past decades. A dermal administration of allergens could target these professional antigen-presenting cells directly and build up immunotolerance. Additionally, many of the adverse side effects, which are seen in the current state of the art specific immunotherapy routes, could be avoided. Therefore, in this study a penetration enhancing microemulsion was developed and its physicochemical properties were determined under several storage conditions. The influence of different preservatives on the microemulsion stability was observed.

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