Colitis alters the antigen-specific response to skin commensal bacteria and predisposes to neutrophilic skin inflammation

Mukai M, Takahashi H, Amagai M

1 Dermatology, Keio University School of Medicine, Tokyo, Japan and 2 Laboratory for Skin Homeostasis, RIKEN IMS, Yokohama, Japan

IFNgR1/2 double deficient mice function as an immunoregulatory pathway. Thus IFNg signaling exerts not only pro-inflammatory but also anti-inflammatory actions depending on the types of signal-accepting cells. Therefore, the expression and its function of Langerhans cells have not been reported. Objective: To determine the mRNA and protein expression of opsin in human Langerhans cell-like cell-line, ELD-1. Method: ELD-1 cell-line was cultured in 1640 medium supplemented with 10% FBS. The mRNA level and protein content of opsins in ELD-1 were detected by fluorescence microscopy. Results: The expression of Opsin1, Opsin2, Opsin3, and Opsin5 mRNA were detected in ELD-1 and opsin3 mRNA was significantly upregulated more than other opsins (p<0.05). The results were consistent with that of opsins protein by western blot analysis. Conclusion: Our study is the first report on the expression of opsins in ELD-1, and opsin may play an important role in LCs.