

Roles of transcription factor MafB in the formation of natural moisturizing factor (NMF) of skin epidermis

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Natural Moisturizing Factor (NMF) in the skin epidermis is a complex mixture of water-soluble compounds such as amino acids. Filaggrin protein is one of the major components of NMF and is digested to amino acids through multi-step processing and modifications. In this study, we focused on the transcriptional regulation of the *filaggrin* gene expression during skin epidermal development. We identified an enhancer element upstream of the *filaggrin* gene and found that a transcription factor MafB activates it. Further elucidation of the mechanism of the *filaggrin* expression may help to understand how NMF are formed and maintained in skin epidermis.