Patterns of CD98-Positive Cells as a Transit Amplifying Cell Marker in Murine Skin

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CD98, a type II transmembrane protein, plays a critical role in the vectorial transport of amino acids across an epithelium. In epidermis, CD98 was found to be co-localized with $\beta1$ integrin at the plasma membrane of the basal keratinocytes of human epidermis. CD98 is considered as a novel transit amplifying cells marker in human keratinocytes. Therefore, we investigated CD98-positive cell expression patterns. Immunofluorescence analysis showed that CD98 was distributed in bulge, sebaceous gland, outer root sheath, inner root sheath, bulb, and panniculus carnosus muscle. Besides, CD98 expression patterns were prominently distributed in proliferative lesions such as epidermis, club hair, and hair shaft. This study showed that the patterns of CD98-positive expression are related to differentiation of epidermal stem cells.

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