

Relation between epidermal elastin and skin aging

Shingo Tajima

Department of Dermatology, National Defense Medical College

Tropoelastin polypeptide and mRNA were detected in cultured normal human keratinocytes (NHKs) by RNase protection and Western blot assays. The expression of elastin by NHKs was found to reach a maximum level at the quiescent phase of keratinocyte growth. When NHKs were cultured on tropoelastin-coated dishes, their growth potential was greatly suppressed compared with other matrix protein-coated dishes. These results suggest that cultured NHKs can actively synthesize elastin and that keratinocyte tropoelastin may act as a growth-regulator for keratinocyte.