Immortalized Human Epidermal Cell Lines

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ABSTRACT

Researchers at the University of California, Davis have developed several immortalized human epidermal cell lines.

FULL DESCRIPTION

Spontaneous immortalization of human epidermal cells occurs very rarely. This has made studying the effect of spontaneous immortalization on human epidermal cells a challenge to scientists.

Researchers at the University of California Davis have developed 3 epidermal cell lines from one human skin sample. Keratinocytes from normal human skin were cultured until they spontaneously formed immortalized keratinocytes. The cell lines display elevated colony forming ability and exhibit continued vigorous growth without senesce. Regulation of cell growth and differentiation were minimally altered compared to normal keratinocytes.

APPLICATIONS

- Model system for treatments affecting keratinocyte growth and differentiation
- *In vitro* skin model to study skin function and integrity
- Host-pathogen interactions
- Disease pathogenesis

FEATURES/BENEFITS

- Human cell line
- Minimal difference in regulation of cell growth and differentiation compared to normal primary cell line
- Forms progressively growing colonies and gives continued vigorous growth without senescence

OTHER INFORMATION

Immortalized Human Epidermal Keratinocytes (SIK) are available for sale by Applied Biological Materials Inc. and can be purchased using the following link: Immortalized Human Epidermal Keratinocytes (SIK), ABM Catalog No. T0770

RELATED MATERIALS

- Rea MA, Zhou L, Qin Q, Barrandon Y, Easley K, Gungner S, Phillips MA, Holland WS, Gumerlock PH, Rocke DM, Rice RH (2006) Spontaneous immortalization of human epidermal

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INVENTORS

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OTHER INFORMATION

KEYWORDS

spontaneously immortalized, keratinocyte, human epidermis

CATEGORIZED AS

- **Medical**
  - Research Tools
- **Research Tools**
  - Cell Lines

RELATED CASES

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cells with naturally elevated telomerase. J Invest Dermatol 126:2507-2515 - 11/01/2006

▶ Rice RH, Steinmann KE, deGraffenried LA, Qin Q, Taylor N, Schlegel R (1993) Elevation of cell cycle control proteins during spontaneous immortalization of human keratinocytes. Molec Biol Cell 4:185-194 - 02/04/1993

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