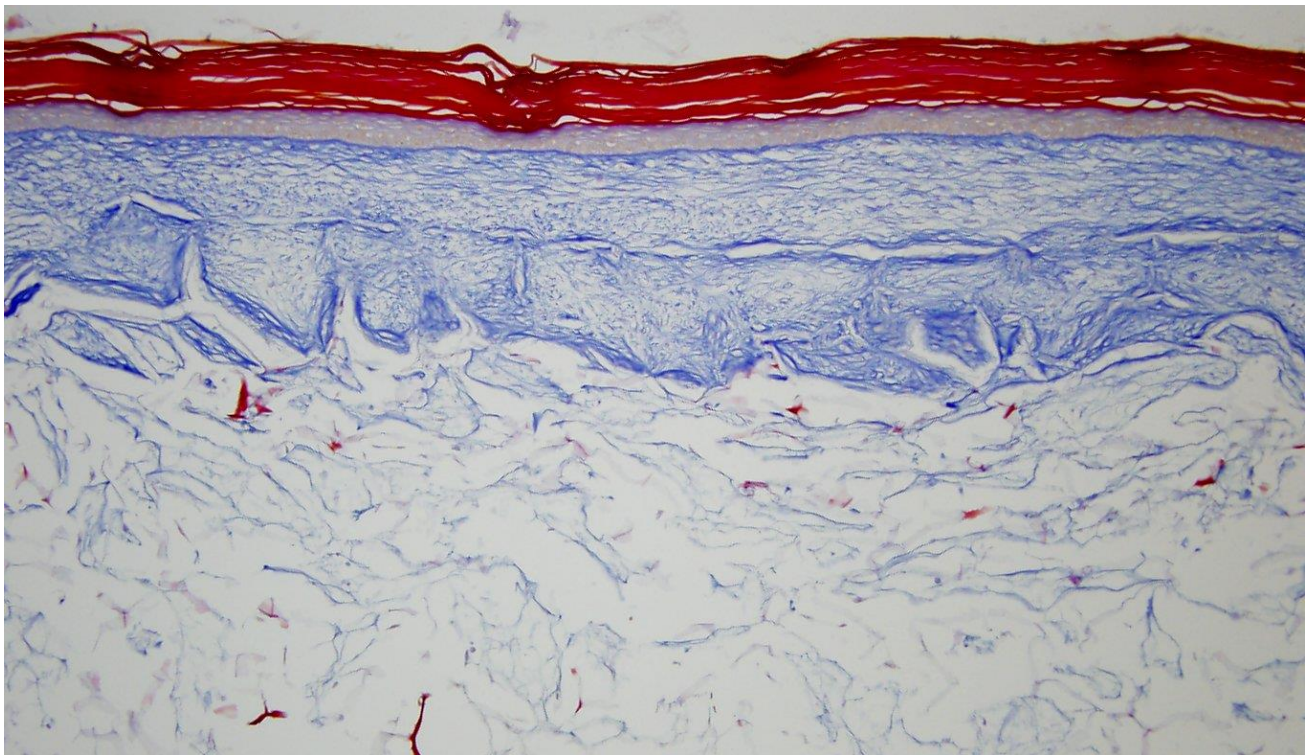


Phenion® products

# Phenion® Full-Thickness LONG-LIFE Skin Model

When it comes to human skin – the long-lasting *in vitro* 3D tissue construct



# Phenion FT LONG-LIFE Skin Model

With the Phenion FT LONG-LIFE (LL) model we are offering a full-thickness skin equivalent which can be kept in culture for up to 50 days after arrival at your lab. Based on innovative protocols, fibroblasts and keratinocytes have achieved an advanced state of homeostasis at a very early stage during tissue production, which is maintained throughout the whole culture period. The 4 times extended life-span, compared to the standard FT model, opens the gateway to completely new application fields.

It allows to monitor physiological, biochemical and genetic processes, e.g. after tissue exposure with chemicals, formulations or environmental impacts, over a long period of time. Late-onset or long-term effects can be studied as well as recovery or regeneration after tissue treatment. The LONG-LIFE model is also ideally suited for repeated dosing, and it could provide an in vitro platform for research into development and treatment of skin tumors.

The standardized LONG-LIFE production processes guarantee the same high level of quality offered by the other Phenion® skin models.

The Phenion FT LONG-LIFE model can be purchased at any number (order number FT LONG-LIFE-1) at a price of 190 € per piece. Together with the Phenion FT LONG-LIFE Skin Models we provide sterile petri dishes, filter papers, spacers which are required for culturing the tissues in your lab. This material enables either individual tissue culture in separate vessels (small petri dishes) or the joint culture of up to 6 models in a single medium-sized petri dish.

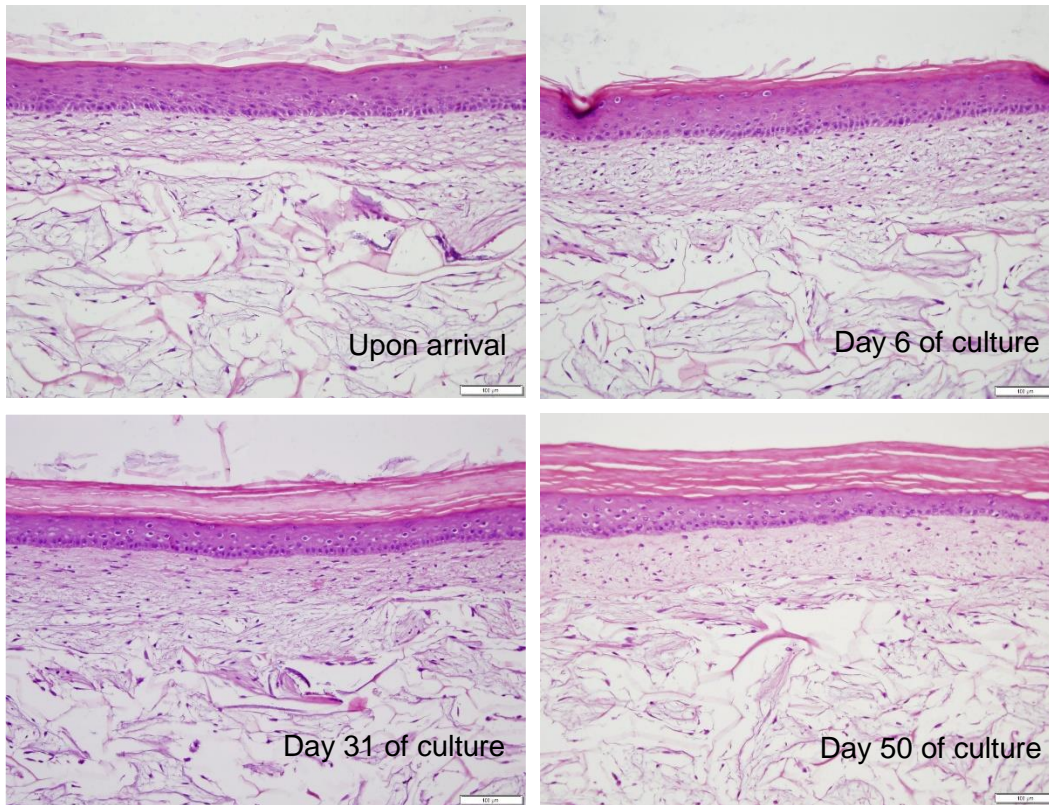
Tailor-made culture medium needs to be ordered separately. We recommend fresh medium for proper culture conditions every other day, the respective medium volume should be calculated with 5 ml per tissue. You will find more details in the *Instructions for Use* provided on our website [phenion.com](http://phenion.com).

## Characteristics

- Tissue dimensions: 1.4 cm in diameter, 3 mm thickness
- Constructed on basis of proprietary collagen matrix
- Human skin fibroblasts and keratinocytes from single donor origin
- **Extended experimental phase of at least 50 days**

## Tissue morphology during culture

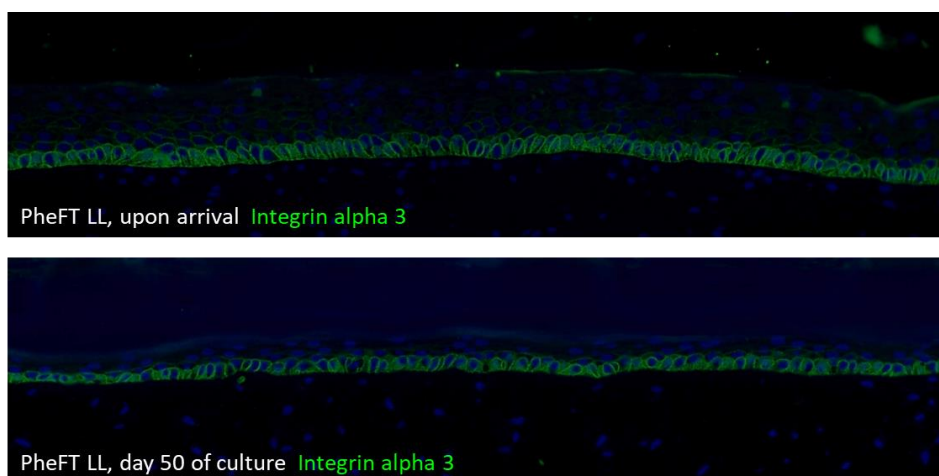
The typical tissue differentiation of the Phenion LL Skin Model is illustrated by paraffin histology



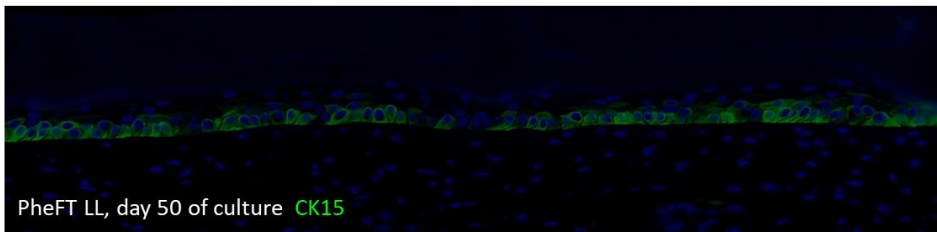
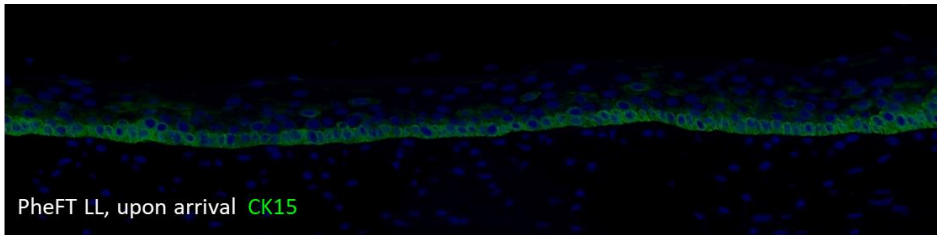
Phenion FT LL, tissue morphology (H&E stain, paraffin sections)

## Immunolocalization of proteins

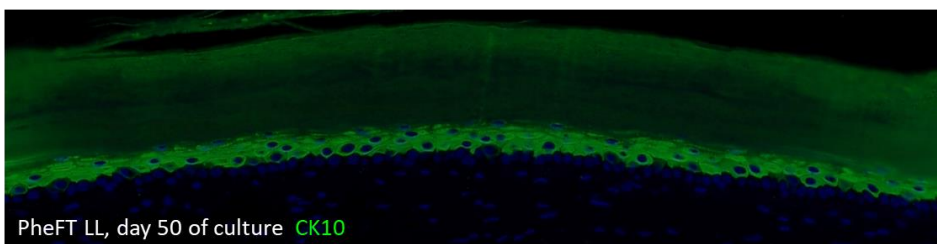
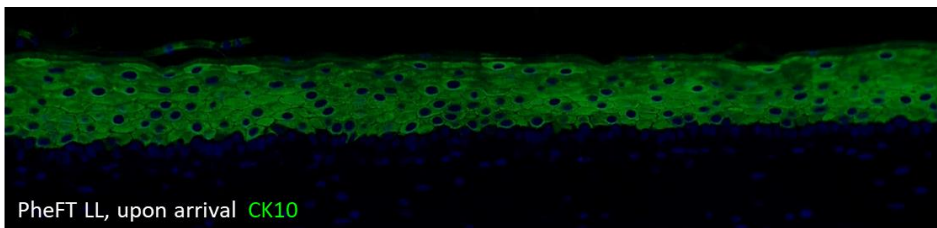
Detection of differentiation proteins was conducted by immunofluorescence analysis



Integrin alpha 3 is located on the surface of the basal keratinocytes and acts as a major component of the cell adhesion complex



Cytokeratin 15 is expressed as stem cell marker in the basal keratinocytes



Cytokeratin 10 is located in all supra-basal living layers of the epidermis