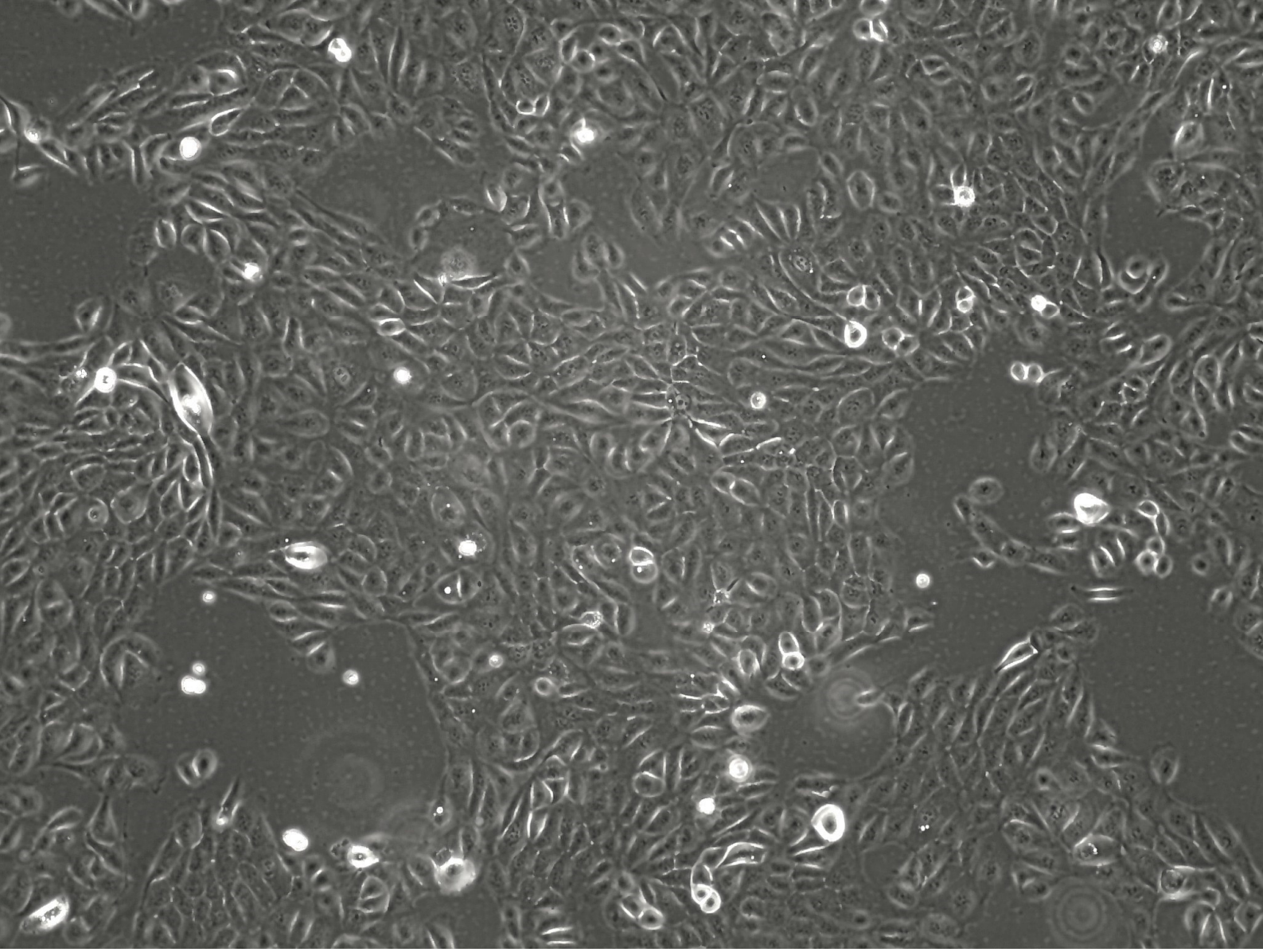

Human dermal keratinocytes

hTERT and SV40 early region immortalized

NHEK/SVTERT3-5

Good experiments start with the right choices – hTERT immortalized cell lines retain the cell-type specific phenotype while constantly growing. No more lot-to-lot variability. No more growth arrest.

Just the perfect choice!

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Human dermal keratinocytes (NHEK/SVTERT3-5)

Human keratinocytes represent the major component of the epidermal tissue with an essential role in forming an effective barrier between the human body and the outside.

_in a nutshell

- Original tissue: **human adult skin / pendulous abdomen**
- Established by transduction of **keratinocytes** with a retrovirus carrying the catalytic subunit of **human telomerase (hTERT)** and transfection with a plasmid carrying **SV40 early region**
- **Single clone** with distinguished keratinocyte markers and functions and unlimited growth characteristics
- Ability to differentiate into a well-organized **3D skin equivalent in an air-liquid interface**
- Expression of **typical keratinocyte markers** after 3D differentiation

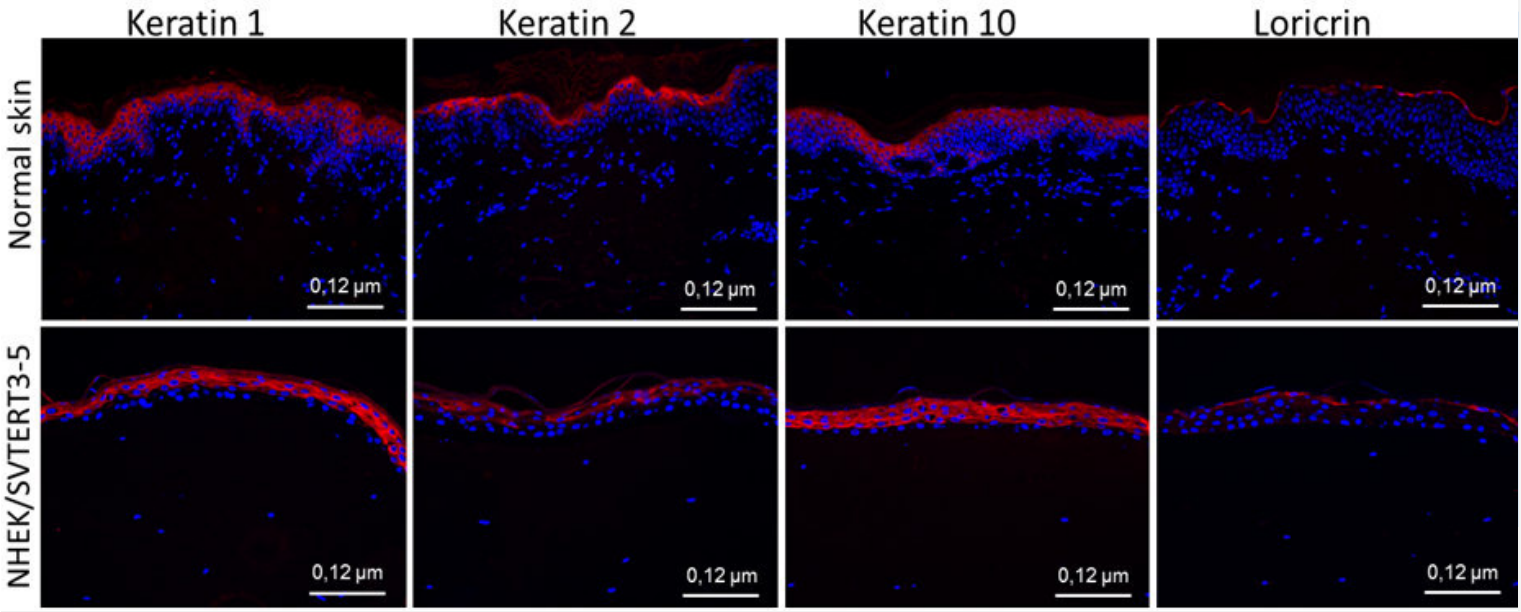
_cell-type specific characteristics

Continuous growth *in vitro*

The cell line was continuously cultured for more than 50 population doublings without showing signs of growth retardation or replicative senescence with a constant population doubling time of 48-60 hours.

Marker Expression in 3D skin equivalents

Immunofluorescence stainings of 3D skin equivalents established with NHEK/SVTERT3-5 cells show expression of the cell-type specific markers Keratin-1, Keratin-2, Keratin-10 with a staining pattern similar to normal skin.



_applications

- **Study of pathogenesis of skin-related diseases**
- **Representative in vitro model to study wound healing processes**
- **Establishment of standardizable 3D skin equivalents for toxicity studies**
- **Study of drug delivery across skin barrier and skin irritation, corrosion**
- **Establishment of gene-edited in vitro model systems**

_adherence to GCCP-Standards!

Evercyte is committed to follow the principles of Good Cell Culture Practice (GCCP, Coecke et al., 2005). Therefore, our cell lines are:

- ✓ **established following highest ethical standards** (studies are approved by IRB in accordance with the Declaration of Helsinki)
- ✓ **quality tested** (sterility, absence of specific human-pathogenic viruses, STR-Profile, longevity)
- ✓ **characterized for expression of cell type specific markers and functions**

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