

sCellLiVE® Tissue Dissociation Mix (Skin)

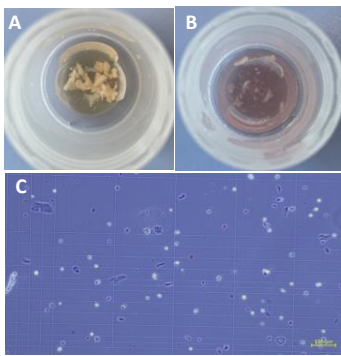
Transforming Tissue into Discoveries

As a first step in a single cell experiment, efficient yet gentle tissue dissociation is key to a successful experiment. However, separating skin cells can be challenging due to their dense extracellular matrices and strong cell-cell adhesion. The **sCellLiVE® Skin Dissociation Mix** ensures high cell viability at full cell yield for successful subsequent single cell libraries.

Highlights

- **Applicable** to both human and mouse, both dermis/epidermis
- **Fast:** Dissociation can be done within 1-2h, minimizing the impact on transcriptomic
- **Easy to Use:** straightforward dissociation using one enzymatic working solution

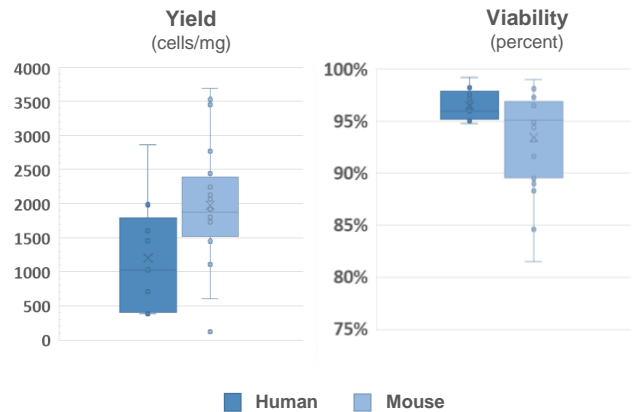
High Viability at Full Cell Yield



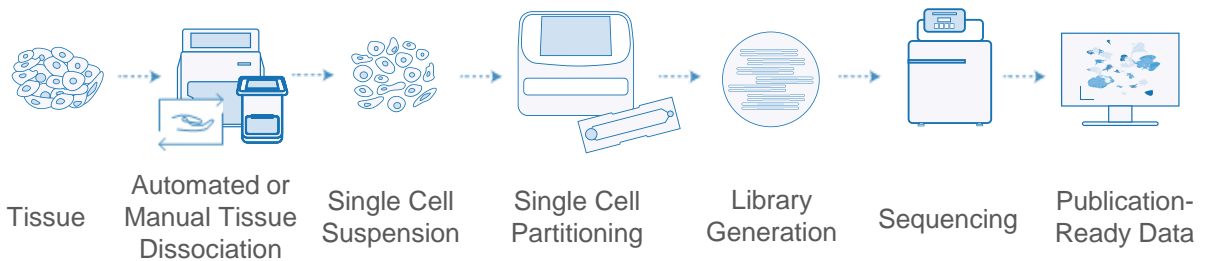
Mouse skin (150mg, full-thickness) was dissociated using PythoN Junior. (A) sample before dissociation and (B) after 2x30min dissociation in sCellLiVE Skin dissociation mix. (C) 10x magnification of ready-to-use cell suspension.

The protocol is based on enzymatic digestion combined with mechanical dissociation, with no extra incubation time needed. The recommended tissue input ranges from 10-300mg per reaction. RBC lysis and double filtering might be necessary when working with very large tissue.

Cell yield and viability of mouse (n=20) and human (n=9) skin tissue were determined after tissue dissociation. High cell viability was observed across all samples underscoring the protocol's gentle yet efficient nature. Both are important factors for accurate and successful single-cell analysis. Once single cell suspensions are obtained, they can be directly loaded on the SCOPE-chip® and used for NGS library preparation.

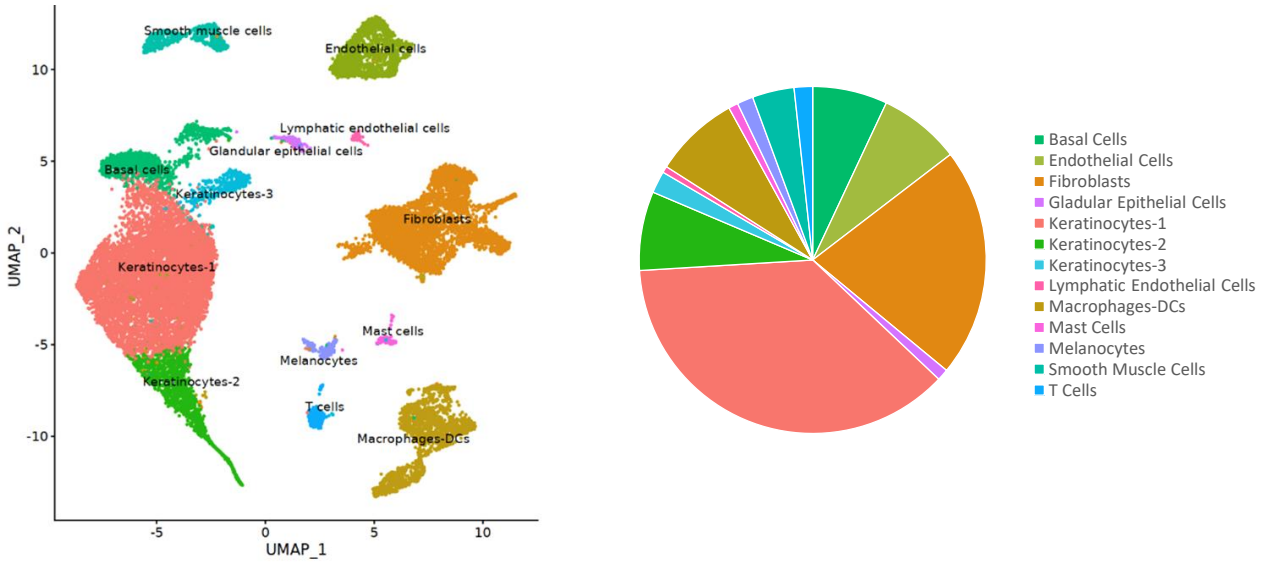


Workflow

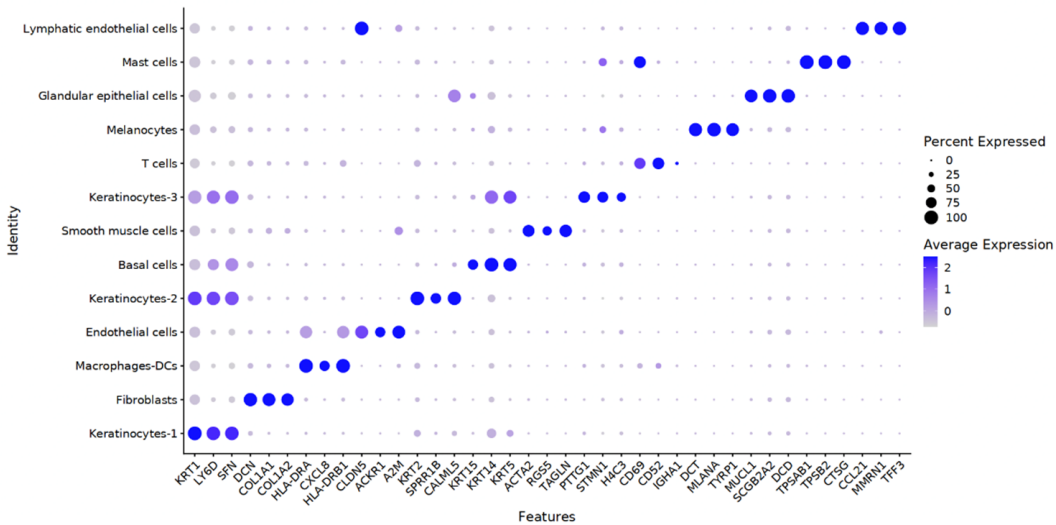


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Single Cell Analysis of Dissociated Human Skin Tissue



Cell type composition of analyzed tissue: As part of our bioinformatics analysis pipeline, single cells can be clustered and annotated based on their gene expression pattern, including small populations.



Differential Gene Expression: Top 3 upregulated genes in each cell type were used as molecular signatures to define particular cell populations.

Product	Reactions	Catalog Number
sCellLiVE® Tissue Dissociation Kit (Skin) - PythoN®	24 RXNs	11400603
sCellLiVE® Tissue Dissociation Kit (Skin) - PythoN Junior™	24 RXNs	11400602

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