Alvetex® Advanced

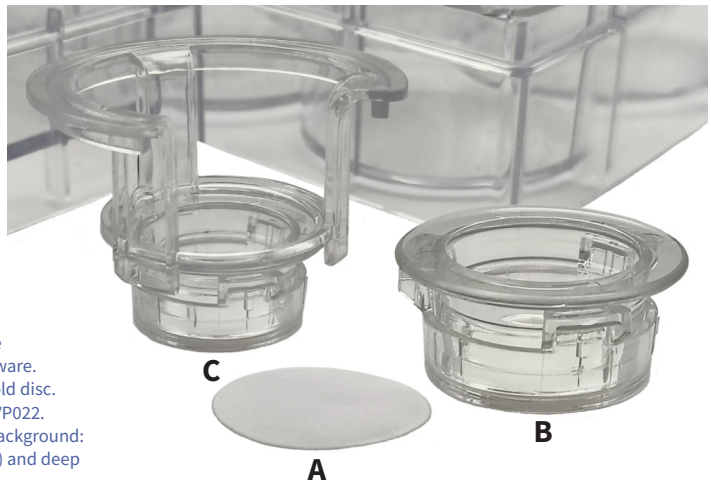
Tissue Bioengineering System

alvetex

A REPROCELL BRAND

The most versatile system for enabling the bioengineering of human tissues

Alvetex Advanced is REPROCELL's next-generation 3D tissue platform, designed for scientists who need biologically relevant, reproducible models such as skin for testing **pharmaceuticals, cosmetics, chemicals, and devices**. Powered by our proven Alvetex scaffold technology, it creates bioengineered constructs that share the features of real human tissues.



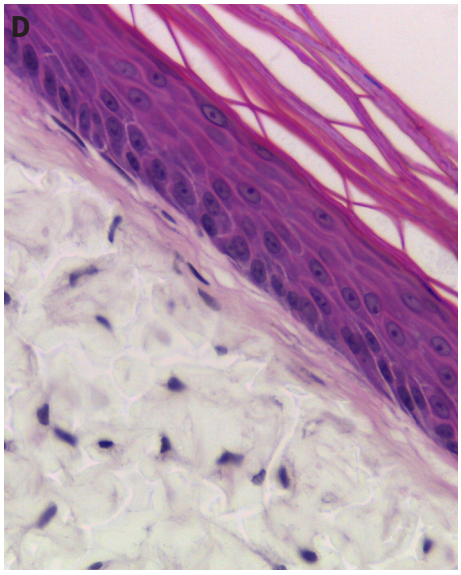
Right: Alvetex Advanced tissue bioengineering system plasticware. Foreground: (**A.**) Alvetex Scaffold disc. (**B.**) Alvetex Advanced insert AVP022. (**C.**) Insert in handle AVP023. Background: deep single well plate (AVP029) and deep 6 well plate (AVP026).

Why Alvetex Advanced?

- **Biologically-Accurate Tissue Models**
  Flexible scaffold design enables creation of advanced 3D human tissue, such as skin, that closely mimics native tissue.
- **Easy Topical Application**
  Direct access to the epidermal/barrier surface allows simple testing of creams, chemicals, devices, or measurement probes.
- **Leak-Free Innovation**
  A unique tissue seal between compartments minimises leakage and eliminates "edge effects" — especially useful for barrier assays.
- **Non-Invasive Functional Readouts**
  Compatible with standard skin barrier and physiology measurements, including pH, TEWL, TEER, water loss, and dye penetration.
- **Seamless Lab Integration**
  Inserts can be transferred between standard and custom plate formats without disrupting cultures.
- **Customisable Handles & Interfaces**
  Interchangeable handles allow precise control of insert depth, medium volume, and air-liquid interface positioning.
- **Flexible Incubation Options**
  Models can be maintained in single wells using commercial plates or REPROCELL's custom deep-well formats.

Alvetex Advanced: The next step in bioengineering human tissues *in vitro*

With Alvetex Advanced, you can perform reliable, translational experiments with human-relevant tissues — reducing reliance on animal models and improving predictive accuracy.



Above: (**D.**) Bioengineered full thickness human skin model (sample prepared for histology and stained with H&E). (**E.**) Compatibility with instrumentation used in the clinic (example shows measurement of transepidermal water loss).

Products

Note: All products are sterile gamma irradiated.

Product Name	Product Number	Pack Sizes
Alvetex Advanced 15mm Modular Inserts containing Alvetex Scaffold Membrane In blister packed units of 6 inserts in an insert holder, with lid	AVP022	6, 12, 24, 48, 60, or 96 inserts
Low handles for Alvetex Advanced modular inserts	AVP023	12, 24, 48, 60, or 96 low handles
Medium handles for Alvetex Advanced modular inserts	AVP024	12, 24, 48, 60, or 96 medium handles
High handles for Alvetex Advanced modular inserts	AVP025	12, 24, 48, 60, or 96 high handles
Advanced deep plates 6 well, with lid	AVP026	5, 10, or 15 plates
Advanced single well plates 50 ml, with lid	AVP027	5, 10, or 15 plates
Advanced single well plates 75 ml, with lid	AVP028	5, 10, or 15 plates
Advanced single well plates 125 ml, with lid	AVP029	5, 10, or 15 plates
6-well handle holder for use with Advanced single well plates	AVP030	2, 4, or 10 holders
6-well holder for Alvetex Advanced modular inserts, with lid	AVP031	1, 2, or 10 holders

www.reprocell.com/product-catalog/alvetex-advanced-tissue-bioengineering-system

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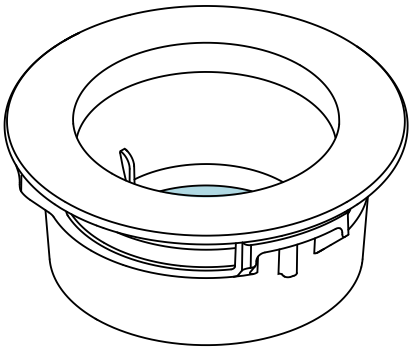
Alvetex Advanced Modular Plasticware

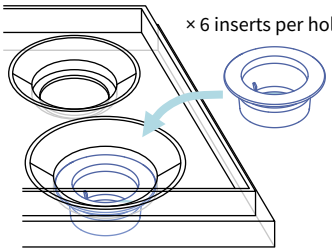
AVP022

15 mm modular insert containing Alvetex Scaffold membrane (disc)

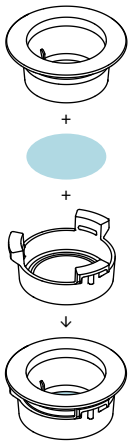


Alvetex Advanced 15 mm modular inserts (AVP022) are supplied in multiples of 6 units, sealed inside a 6 well insert holder with lid (holders and lids can also be purchased separately as AVP031).

The Alvetex membrane is housed within a specially designed insert providing a tight seal around its perimeter, enabling the construction of tight tissue models for barrier testing.

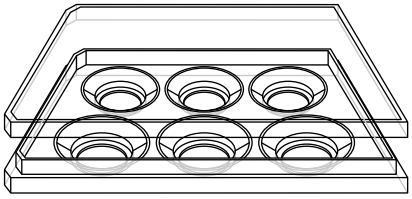


Insert in holder



AVP031

Insert holder + lid



Insert in handle

AVP023

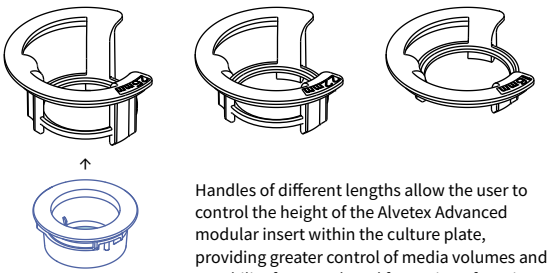
Low handle

AVP024

Medium handle

AVP025

High handle

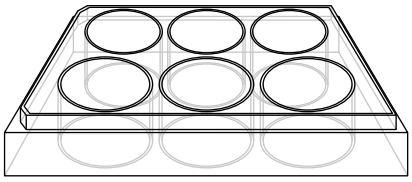


The insert holder can support 6 Alvetex Advanced modular inserts (AVP022) and is designed such that the culture medium beneath is separated from the upper side of the insert, reducing the risk of media contamination during interactions with the surface of the bioengineered model. AVP031 fits into the single welled plates (AVP027, 028 or 029), deep 6 well plate (AVP026) and most common commercial 6 well plates.

Handles of different lengths allow the user to control the height of the Alvetex Advanced modular insert within the culture plate, providing greater control of media volumes and capability for growth and formation of an air-liquid interface.

AVP026

Advanced deep plate, 6 well

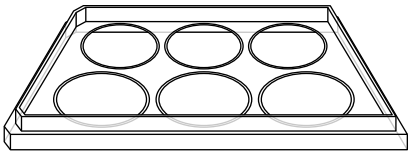


Alvetex Advanced inserts require either an insert holder (included in AVP022, and available separately as AVP031) or insert handles (AVP023, AVP024, or AVP025) for suspension in either a commercial 6 well plate or an Advanced single well plate (AVP027, AVP028 or AVP029). Low and medium handles require the Advanced deep 6 well plate (AVP026) or single well AVP028 or AVP029.

Alvetex Advanced inserts plus handles require the handle holder (AVP030) for suspension in an Advanced single well plate (AVP027, AVP028 or AVP029).

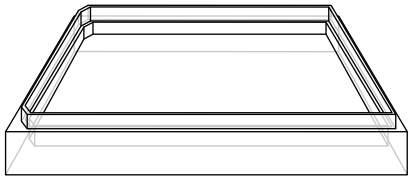
AVP030

Handle holder



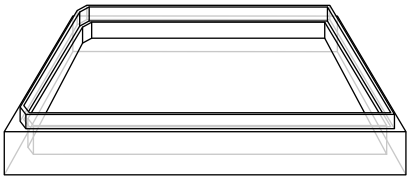
AVP027

Advanced single well plate, 50 mL



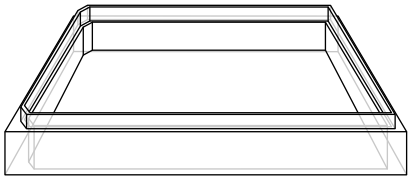
AVP028

Advanced single well plate, 75 mL

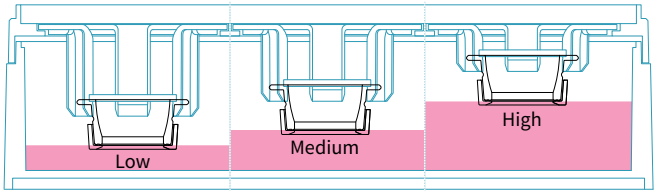


AVP029

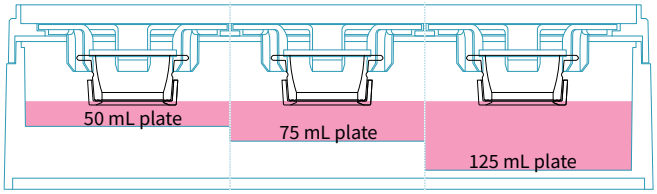
Advanced single well plate, 125 mL



Alvetex Advanced 15 mm inserts (AVP022) in low (AVP023), medium (AVP024) and high (AVP025) handles with a handle holder (AVP030) suspended in a deep 125 mL plate (AVP029) with different levels of culture medium (pink).



Alvetex Advanced 15 mm inserts (AVP022) in high handles (AVP025) with a handle holder (AVP030) suspended in deep 50 mL (AVP027), 75mL (AVP028) and 125 mL (AVP029) plates with different levels of culture medium (pink).



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