

## Product Information

### Stemline® Keratinocyte Medium II

without L-glutamine, calcium-free, with phenol red

Catalog Number **S0196**

Storage Temperature 2–8 °C

### Stemline® Keratinocyte Growth Supplement

with Bovine Pituitary Extract (BPE)

Catalog Number **S9945**

Storage Temperature –20 °C

#### Product Description

The structure of the epidermis involves a number of cell types, among them keratinocytes and keratinocyte stem cells. The ability to culture and manipulate primary keratinocytes in a serum-free medium is required in order to utilize the cells for therapeutic and diagnostic procedures, such as autografting and allografting to aid in wound healing, investigating the feasibility of *ex vivo* gene therapy approaches, as well as in ADME/TOX research.

The Stemline® Keratinocyte Medium II (Catalog Number S0196) has been developed for use with adult and neonatal normal human epidermal keratinocytes. It is a 1×, sterile, liquid tissue culture medium intended for use as one component in a complete culture environment for the growth of normal human epidermal keratinocytes (NHEK). The medium is calcium-free and to fully support plating and proliferation of human keratinocytes, it must be supplemented with calcium, L-glutamine, selected hormones, and growth factors.

Stemline Keratinocyte Growth Supplement (Catalog Number S9945) provides all of the necessary components required to facilitate the growth of NHEK.

Both products are sold separately.

The Stemline Keratinocyte Medium II (Catalog Number S0196) contains essential and non-essential amino acids, vitamins, other organic compounds, trace minerals, and inorganic salts. It does not contain antibiotics, antimycotics, hormones, growth factors, or proteins. This medium is HEPES and sodium bicarbonate buffered, and has a pH of 7.4 when equilibrated in an incubator with 5% CO<sub>2</sub>.

The Stemline Keratinocyte Growth Supplement with BPE (Catalog Number S9945) is optimized for use with the Stemline Keratinocyte Medium II. After adding this supplement to the medium, the final concentration of components is as follows:

Bovine Pituitary Extract (BPE)	0.4% (v/v)
EGF, human, recombinant	0.125 ng/ml
Insulin, human	5 µg/ml
Hydrocortisone	0.33 µg/ml
Transferrin, human	10 µg/ml
Epinephrine	0.39 µg/ml
CaCl <sub>2</sub>	0.15 mM

#### Reagents Required But Not Provided

200 mM Ala-Gln Solution, sterile  
(Catalog Number G8541)

200 mM L-Glutamine Solution, sterile  
(Catalog Number G7513)

L-Glutamine powder, γ-irradiated  
(Catalog Number G6392)

#### Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

**Preparation Instructions**

1. Thaw one vial of the supplement at room temperature or in the cooler.
2. Transfer the entire contents of the vial of supplement to one 500 ml bottle of Stemline Keratinocyte Basal Medium II using sterile technique in a laminar flow hood.  
Note: Supplementing with S9945 results in a final calcium concentration of 0.15 mM.
3. Stemline Keratinocyte Basal Medium II must also be supplemented with L-glutamine to a final concentration of 2–6 mM (Catalog Numbers G8541 [recommended], G7513, or G6392).
4. Tightly cap the bottle of supplemented medium and swirl the contents to ensure a homogeneous solution. Avoid causing the medium to foam.

**Storage/Stability**

The Stemline Keratinocyte Basal Medium II is stable, when stored at 2–8 °C and protected from light, until the date indicated on the label.

The supplemented medium can be stored for at least two weeks at 2–8 °C if protected from light.

**Related Products**

Bovine Pituitary Extract, sterile, 14 mg/ml in PBS  
(Catalog Number P1476)  
EGF, human, recombinant, sterile lyophilized powder  
(Catalog Number E9644)  
Insulin, human, recombinant, sterile solution  
(Catalog Number I9278)  
Hydrocortisone Solution, sterile, in normal saline  
(Catalog Number H6909)  
Transferrin, human,  $\gamma$ -irradiated powder  
(Catalog Number T5391)  
Epinephrine, powder  
(Catalog Number E1635)

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