

Protide's discovery of the Serum-Free Cell Cycle has permitted scientists to study cellular phenomena, cryopreserve and recover cells completely under serum-free conditions. For example, growth factors and steroid hormones can now effectively be studied both in their presence and absence. Cell secreted proteins can be highly purified without the interference of contaminating components such as serum. Overall, by controlling the in vitro environment, (most importantly the growth media), the biological data generated will be consistent and reliable.

Because of our technological advances, the Protide products **TCM<sup>tm</sup>**, **TM-235<sup>tm</sup>** and **TCH<sup>tm</sup>** DO NOT contain

•Growth Factors (e.g. TGF, FGF, EGF, etc.)

•Steroid Hormones (e.g. estrogen, testosterone)

•Glucocorticoids (e.g. hydrocortisone)

•Cell Adhesion Molecules (e.g. laminin, fibronectin, collagen)

The result of our technology is the elimination of:

•Viruses

•Bacterial Toxins

•Proteases

•Contaminating Ig

•High endotoxin levels

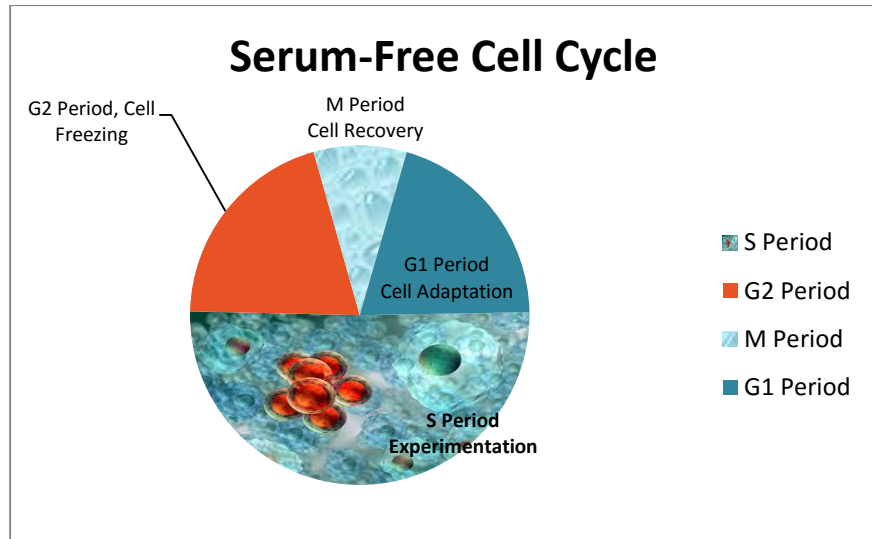
•Mitogens

•DMSO and serum for cell freezing

## STAY IN THE CYCLE!

### Protide's Serum-Free Technology Overview

Our Serum-Free technology improves the physiological condition of cells



#### TCM<sup>TM</sup>

General purpose serum replacement for many cell types from a variety of species. The bovine albumin and transferrin are highly purified and heat treated. The final total protein concentration is less than 0.1%. TCM is packaged as a 50X concentrate.

- Catalog No. 1001 size 40ml – produces 2 liters of complete growth medium
- Catalog No. 1002 size 100ml – produces 5 liters of complete growth medium
- Catalog No. 1005 size 500ml produces 25 liters of complete medium

#### TM-235<sup>TM</sup>

Has similar properties as TCM, however, contains additional components for cells which require serum concentrations (e.g. fetal bovine serum) higher than 10%. The final total protein concentration is less than 0.1%. The bovine albumin and transferrin are highly purified and heat treated. TM-235 is packaged as a 50X concentrate.

- Catalog No. 2001 size 40ml produces 2 liters of complete medium
- Catalog No. 2002 size 100ml produces 5 liters of complete medium
- Catalog No. 2005 size 500ml produces 25 liters of complete medium

#### TCH<sup>TM</sup>

Primarily for human cells and the production of cell secreted proteins. TCH is also effective in culturing other mammalian cells without the use of animal proteins. TCH is packaged as a 50X concentrate.

- Catalog No. 3001 size 40ml produces 2 liters of complete medium
- Catalog No. 3002 size 100ml produces 5 liters of complete medium
- Catalog No. 3005 size 500ml produces 25 liters of complete medium
- Custom Sizes Available – Please contact Customer Service for information

## HemaPro™

### Ex Vivo Reagent

Is a serum-free clonogenic medium for the culturing of human progenitor cells. Does not contain erythropoietin, recombinant growth factors, human serum or fetal bovine serum. Effective in studying stimulatory factors.

- Catalog 3300 size 40ml produces 2 liters of complete medium
- Catalog 3303 size 100ml produces 5 liters of complete medium

## Cellvation™

Is a unique cryopreservation medium which eliminates the problems associated with DMSO such as cytotoxicity, morphological differentiation and the adventitious components found in serum. Cellvation™ is convenient to use, provides optimal recovery while eliminating preparation and centrifugation steps and can be used for cells cultured in serum free medium or with serum containing medium.

- Catalog No. 5001 size 60ml (1X concentrate)

## pZerve™

Is a cryopreservation solution that does not contain dimethylsulfoxide (DMSO), fetal bovine serum or other animal protein. Optimal recovery is achieved through elimination of these harmful components. pZerve is ready to use, does not require any dilution or further processing and can be used for cells cultured in serum free medium or with serum containing medium.

- Catalog No. 5700 size 60ml (1X concentrate)

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All products are available in Custom Sizes – Please contact Customer Service for information

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