



## StemDS® Human Pluripotent Stem Cell Dissociation Solution (StemDS)

Catalog #5803

### Product Description

StemDS® cell dissociation solution is an animal-component-free, sterile, phosphate and HEPES-buffered saline solution designed for the optimal dissociation of adherent human embryonic stem cells and induced pluripotent stem cells. StemDS® solution contains 1 mM sodium pyruvate and 10 mM HEPES. This product has a pH of 7.2 at room temperature.

### Product Use

StemDS® is used to detach adherent human embryonic stem cells and induced pluripotent stem cells from adherent culture substrates. StemDS is for research use only. It is not approved for human or animal use, or for application in clinical or *in vitro* diagnostic procedures.

### Storage

Store StemDS® at 4°C. Protect from light.

### Shipping

Dry ice.

### Prepare for use

As with any cell dissociation solution, excessive incubation with StemDS® will damage cell membranes and will lead to a high level of cell death. The incubation time for cell detachment from the culture surface is dependent on cell type, population density and substrate; and therefore, should be determined empirically by individual user. Below is our recommendation for passaging H9 human embryonic stem cells cultured on Geltrex™ or BD Matrigel™.

- 1) Remove medium from culture vessel by aspiration and wash cells twice with Ca<sup>+2</sup> and Mg<sup>+2</sup> –free phosphate buffered saline solution (Cat. #0303) to remove cellular debris. Aspirate wash solution.
- 2) Dispense enough StemDS® into culture vessel to completely cover the cells and place in a 37°C incubator for 3-6 minutes. Colonies should remain adherent after incubation when viewed under the microscope.
- 3) Aspirate StemDS® and add complete STEMium™ growth medium (Cat. #5801) to cells as soon as possible.
- 4) Cells can be harvested by gently pipetting the cell suspension. Further dilution can be made, if required, for cell counts and/or subculturing.

*Caution: If handled improperly, some components of the medium may present a health hazard. Take appropriate precautions when handling it, including the wearing of protective clothing and eyewear. Dispose of properly.*