

StemPro[®] EZPassage[™] Disposable Stem Cell Passaging Tool

Cat. No. 23181-010

Size: Box of 10 Disposable Passaging Tools Store at room temperature

Description

The StemPro® EZPassage™ Disposable Stem Cell Passaging Tool represents a novel human embryonic stem cell passaging device that makes manual passaging of stem cell colonies more rapid and reproducible. The Passaging Tool is made of a proprietary cell-culture safe inert material that facilitates cutting of the embryonic stem cell colonies growing on feeder cells or other substrate into uniform sized pieces for reproducible and optimal passaging. This tool outperforms existing manual and enzymatic passing methods in speed, uniformity of passaged colonies, and reliability.

Advantages of the StemPro® EZPassage™ Disposable Stem Cell Passaging Tool

The StemPro® EZPassage™ Disposable Stem Cell Passaging Tool provides the following advantages:

- Manually passage stem cell colonies in a fraction of the time compared with standard techniques.
- Stem cell colonies are cut in pieces of uniform size, making passaging of stem cells more reproducible.
- The StemPro® EZPassage™ Disposable Stem Cell Passaging Tool is cell-culture safe, ready for-use and packaged
 individually in gamma-irradiated sleeves.

Important Guidelines for Isolating Cell Colonies

- All procedures should be performed aseptically under a laminar flow hood.
- The StemPro® EZPassage™ Disposable Stem Cell Passaging Tool is intended for **one-time use**. Do not sterilize (alcohol or autoclave) the StemPro® EZPassage™ Disposable Stem Cell Passaging Tool, since the tool may lose shape and cease to function properly.

Using the StemPro[®] EZPassage[™] Disposable Stem Cell Passaging Tool

Use this procedure to cut stem cell colonies using the StemPro® EZPassage™ Disposable Stem Cell Passaging Tool.

- 1. **Optional**: Dissect out the differentiated portions of human embryonic stem cell culture using poker or spike and remove them by changing the medium.
- 2. Pull open packaging and remove Passaging Tool under a laminar flow hood.
- 3. Hold the culture vessel in one hand and pull (roll) the StemPro® EZPassage™ Disposable Stem Cell Passaging Tool across the entire plate in one direction (Left to right). Apply enough pressure so the entire roller blade touches the plate and maintain uniform pressure during the rolling action. Note: Do not remove the culture medium before rolling the plate.
- Keep pulling (rolling) the Passaging Tool parallel to the first pass till you have covered the entire plate, before moving to the next step (see diagram to the right – "First Operation").
- 5. Rotate the culture vessel 90 degrees, then repeat step 2 and 3.
- Using a serological pipette, rinse the plate using the medium on the plate so that the cut colonies are suspended in the medium.
- Rolling direction

 Medium
 Cells

 2nd operation

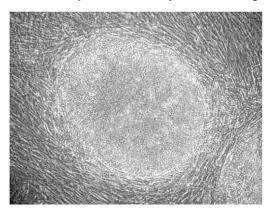
 Rotate the dish
 90° and roll again
- 7. Transfer the medium containing colonies to a 15 ml tube and spin down at 1000 rpm (200 g) for 2 min. Alternatively, you can leave the tube in a stand so that the colonies settle by gravity.
- 8. Aspirate the supernatant carefully to remove single cells or contaminating feeder cells (MEFs) from the population.
- 9. Re-suspend colonies in medium and transfer to the new matrix (typically at a 1:4 passaging rate).
- 10. Discard Stem Cell Passaging Tool after use. Do not re-use.

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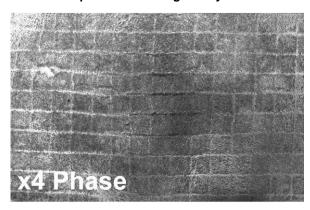
Expected Results

Below a typical example of a human embryonic stem cell culture plate before and after cutting the colony with the StemPro[®] EZPassage[™] Disposable Stem Cell Passaging Tool is shown, as seen under $4 \times magnification$ in phase microscopy.

Cell culture plate with colony before cutting.



Cell culture plate after cutting colony.



Certificate of Analysis

Product qualification is described in the Certificate of Analysis (CofA), available on our website by product lot number at www.invitrogen.com/cofa

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