

# MesenCult™-ACF Dissociation Kit

## Dissociation Kit for Human Mesenchymal Stem Cells

Catalog #05426

1 Kit



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FOR RESEARCH USE ONLY. NOT INTENDED FOR HUMAN OR ANIMAL DIAGNOSTIC OR THERAPEUTIC USES.

## Product Description

MesenCult™-ACF Dissociation Kit is an animal component-free kit optimized for dissociation and passaging human mesenchymal stem and progenitor cells (MSCs) cultured using serum- and animal component-free MesenCult™-ACF Medium (Catalog #05440) or serum- and xeno-free MesenCult™-XF Medium (Catalog #05420).

## Product Information

The following components are sold as a complete kit (Catalog #05426) and are not available for individual sale.

COMPONENT NAME	COMPONENT #	SIZE	STORAGE	SHELF LIFE
MesenCult™-ACF Enzymatic Dissociation Solution	05427	250 mL	Store at -20°C.	Stable until expiry date (EXP) on label.
MesenCult™-ACF Enzyme Inhibition Solution	05428	250 mL	Store at -20°C.	Stable until expiry date (EXP) on label.

## Directions for Use

Please read the entire protocol before proceeding.

NOTE: For instructions on culturing human MSCs using serum- and animal component-free MesenCult™-ACF Medium or serum- and xeno-free MesenCult™-XF Medium, refer to the Product Information Sheets (Documents #28066 and #29184, respectively) available on our website at [www.stemcell.com](http://www.stemcell.com) or contact us to request a copy.

The following protocol is for passaging cells in a single T-75 cm<sup>2</sup> flask. If using other cultureware, adjust cell numbers and volumes accordingly.

1. Thaw MesenCult™-ACF Enzymatic Dissociation Solution (#05427) and MesenCult™-ACF Enzyme Inhibition Solution (#05428) at 2 - 8°C. Mix thoroughly.  
NOTE: Once thawed, use immediately or store at 2 - 8°C for up to 4 days. Alternatively, aliquot and store solutions at -20°C. Do not exceed the shelf life of the solutions. After thawing the aliquoted solutions, use immediately. Do not re-freeze.
2. Warm the MesenCult™-ACF Enzymatic Dissociation Solution and MesenCult™-ACF Enzyme Inhibition Solution to room temperature (15 - 25°C). Do not incubate at 37°C.
3. Wash cells once with 4 mL of D-PBS Without Ca<sup>++</sup> and Mg<sup>++</sup> (Catalog #37350).
4. Add 6 mL of MesenCult™-ACF Enzymatic Dissociation Solution.
5. Incubate at 37°C for 2 - 6 minutes. Tap the flask to detach cells. If less than 90% of cells have detached, incubate at 37°C for an additional 1 - 2 minutes and tap the flask again.
6. Add 6 mL of MesenCult™-ACF Enzyme Inhibition Solution and collect cells in a polypropylene tube (e.g. 50 mL polypropylene tube [Corning Catalog# 352070]).
7. Wash the flask with 6 mL of one of the following:
  - Complete MesenCult™-ACF Medium (MesenCult™-ACF cultures)
  - Complete MesenCult™-XF Medium (MesenCult™-XF cultures)
8. Place wash into the same polypropylene tube as in step 6.
9. Centrifuge the tube at 300 x g for 8 minutes with the **brake on**.
10. Discard the supernatant and resuspend the cell pellet in desired culture medium.

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