

4 Full features in HTML

Quick User Guide

Mail
 Print
 Save
 Bookmark

Access for partners

Contents of this article

5.1 Introduction

5.2 Materials

5.2.1 Preparation of Cancer...

5.2.2 Dissociation of Prima...

5.2.3 Specialized Culture M...

5.2.4 Sorting of Dissociate...

5.2.5 Transplantation of So...

5.3 Methods

5.3.1 Preparation of Cancer...

5.3.2 Dissociation of Prima...

5.3.3 Specialized Culture M...

5.3.4 Sorting of Dissociate...

5.3.5 Transplantation of So...

5.3.6 Conclusion

5.4 Notes

References

5. Prospective Identification of Cancer Stem Cells with the Surface Antigen CD133

By: [Kyeung Min Joo¹](#), [Do-Hyun Nam¹](#)

Affiliation(s): (1) Department of Neurosurgery, Samsung Medical Center, Cancer Stem Cell Research Center, Sungkyunkwan University School of Medicine, Seoul, Korea

Book Title: [Cancer Stem Cells : Methods and Protocols](#)

Series: Methods in Molecular Biology | **Volume:** 568 | **Pub. Date:** Mar-01-2008 | **Page Range:** 57-71 | **DOI:** 10.1007/978-1-59745-280-9_5

Subject: [Cancer Research](#)

Abstract

[Download PDF \(387K\)](#)

Cancer cells do not share equal tumor-initiating potential. Only cancer stem cells (CSCs) can initiate cancer, which is important clinically because they should be eradicated to treat cancer patients. The purpose of experimental methods for identification of CSC is to isolate CSCs among various kinds of cancer cells in cancer masses. To identify CSCs, cancer masses derived from patients should be dissociated into single cells. Dissociated cells are classified into several groups according to expression status of one or several surface proteins using magnetic cell sorting (MACS) or fluorescence-activated cell sorting (FACS) methods. Sorted cells are cultured in a specialized culture medium for stem cells or inoculated into the primary cancer site of immunodeficient mice. In this chapter detailed experimental methods will be described and glioblastoma will be used as an example of solid cancers.

Key Words: [Cancer stem cell](#) - [Marker](#) - [Glioblastoma](#) - [Dissociation methods](#) - [Primary culture](#) - [MACS](#) - [FACS](#) - [Animal model](#)

Inside SpringerProtocols

- Source Title List
- New Protocols
- Free Protocols
- Popular Protocols
- Tour
- For Contributors/Editors
- For Library Admins

Useful Tools

- Post to [citeulike](#)
- [Related Books](#)
- [Similar Protocols](#)
- Export Citation
- Comment

Useful tools

- Export citation
- Find similar protocols/ related books
- Make comment to this protocol

Contents of this article

Click and jump to specific section of this article

Hyperlinks

Find protocols associated with the author, book, subject or listed keywords.

For example, if you click the book title, you will find all protocols published under this title.

Related Books

[Free](#) [Subscribed](#) [Trial](#)

Cancer Stem Cells : Methods and Protocols

Editor(s): John S. Yu
Series: Methods in Molecular Biology; **Volume No.:** 568
Pub. Date: Mar-01-2008; **DOI:** 10.1007/978-1-59745-280-9
[Contents](#)

Germline Stem Cells

Editor(s): Steven X. Hou, Shree Ram Singh
Series: Methods in Molecular Biology; **Volume No.:** 450
Pub. Date: Apr-01-2008; **DOI:** 10.1007/978-1-60327-214-8
[Contents](#)

Protocols for Adult Stem Cells

Editor(s): Irina M. Conboy, Mary Helen Barcellos-Hoff, David V. Schaffer, Song Li
Series: Methods in Molecular Biology; **Volume No.:** 621
Pub. Date: July-01-2009; **DOI:** 10.1007/978-1-60761-063-2

Similar Protocols

[Free](#) [Subscribed](#) [Trial](#)

Prospective Identification of Cancer Stem Cells with the Surface Antigen CD133

Author(s): [Kyeung Min Joo](#), [Do-Hyun Nam](#)
Pub. Date: Mar-01-2008; **DOI:** 10.1007/978-1-59745-280-9_5
Summary: Cancer cells do not share equal tumor-initiating potential. Only cancer stem cells (CSCs) can initiate cancer, which is important clinically because they should be eradicated to treat cancer patients....
[Abstract](#) | [Full Text](#) | [PDF \(387K\)](#)

Identification of Human Pancreatic Cancer Stem Cells

Author(s): [Chenwei Li](#), [C. J. Lee](#), [Diane M. Simeone](#)
Pub. Date: Mar-01-2008; **DOI:** 10.1007/978-1-59745-280-9_10
Summary: Emerging evidence suggests that malignant tumors are composed of a small subset of distinct cancer cells, termed "cancer stem cells" (typically less than 5% of total cancer cells based on cell surface....
[Abstract](#) | [Full Text](#) | [PDF \(333K\)](#)

Proteomic Evaluation of Cancer Cells: Identification of Cell Surface Proteins

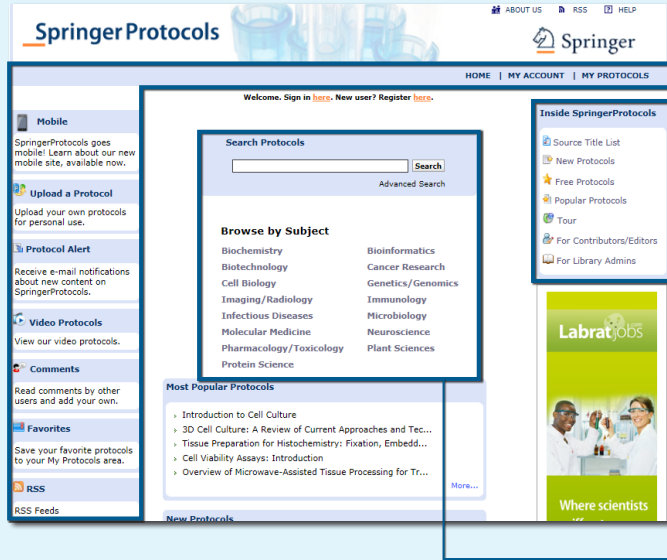


Official website
springerprotocols.com

Content list

1. Homepage
2. Quick search
3. Refine search
4. Full features in HTML

1 Homepage



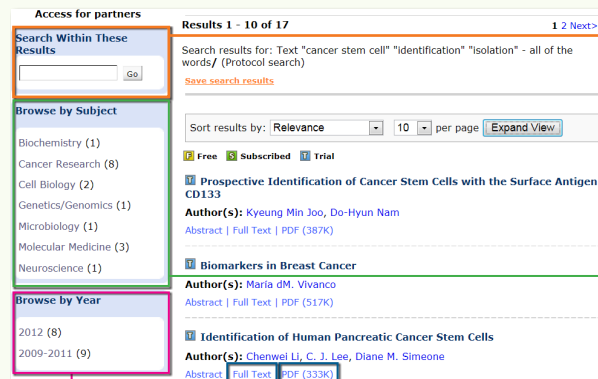
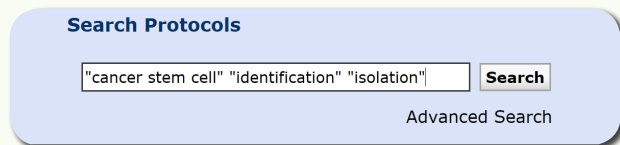
- Main search tools**
- Quick search
 - Advanced search
 - Browse protocols by subject

- Inside SpringerProtocols**
- Source titles (books and journals)
 - New, free and popular protocols
 - Video tutorials
 - For librarian info/tools

- Personalized tools**
- Account management
 - Protocol upload
 - E-alert sign up
 - Read/leave comment
 - Saved protocols
 - RSS feed setup

2 Quick search

Type in keywords > Click the Search button



Click to open document in HTML

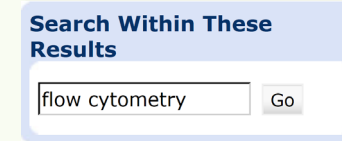
Click to open PDF

3 Refine search

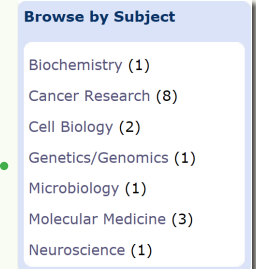
All matching documents are exclusively separated into the corresponding copyright years and subjects.

You may further refine search results:

By keywords (e.g. flow cytometry)



By subject



By year

