

# BD Stemflow Human Pluripotent Stem Cell Sorting and Analysis Kit

## Features

Delivers a streamlined solution for consistent experiments with pre-titered antibodies, protocols, controls, and analysis guidelines

Enables analysis and sorting of pluripotent and differentiated stem cells

Facilitates compensation and scatter setup and conserves cells with BD CompBead Plus

Provides flexibility to drop in additional fluorescently conjugated antibodies against markers for pluripotency and differentiation states

The BD Stemflow™ Human Pluripotent Stem Cell Sorting and Analysis Kit provides a comprehensive system for the sorting and characterization of pluripotent stem cells using flow cytometry. The ready-to-use kit integrates antibodies, compensation beads, protocols, and analysis tools to maximize reproducibility and improve productivity. An open design allows for the easy addition of supplementary antibodies to adapt the kit to meet specific research objectives.

## Flow Cytometry for Multi-parameter Analysis

The Pluripotent Stem Cell Kit lets researchers quickly and reliably sort and analyze cells by leveraging the full capabilities of flow cytometry. A number of different parameters can be analyzed simultaneously, enabling the identification of cell populations based on scatter properties and the surface expression of multiple markers for pluripotency and differentiation.

## High Quality, Ready-to-Use Antibodies

Pre-titered, pre-conjugated monoclonal antibodies provided in the kit accurately pinpoint pluripotent cells and streamline procedures. The monoclonal antibodies are specific for two pluripotency markers (TRA-1-81 Alexa Fluor® 647 and SSEA-3 PE) and one human differentiation marker (SSEA-1 FITC). Corresponding isotype controls are also included.

## BD CompBead Plus Enables Consistent Setup

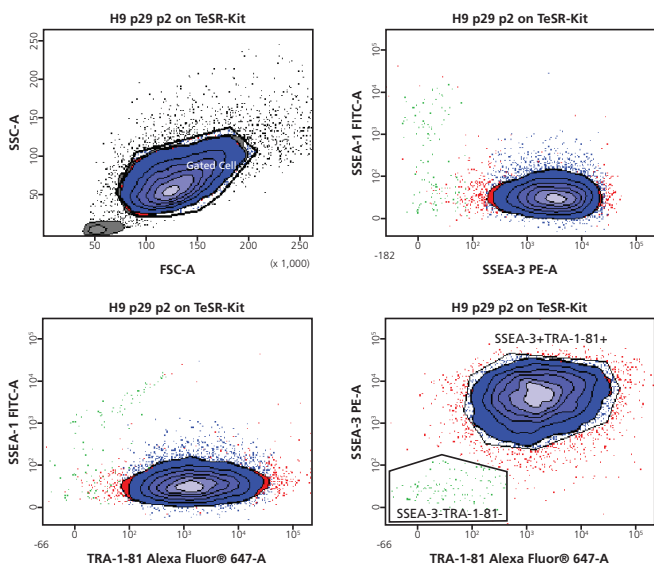
BD™ CompBead Plus microparticles simplify experimental setup by facilitating compensation for multicolor analysis. The use of BD CompBead Plus significantly reduces the number of cells required for experiments and controls while ensuring consistent experimental setup.

## Protocols and Analysis Guidelines

Protocols for processing, sorting, and recovering cells for multiple human embryonic stem cell (hESC) lines streamline the process and eliminate guesswork. Software template setup guidelines simplify analysis and gating for cell sorting. Protocols and guidelines for analysis are both designed to ensure consistent experimental reporting.

## Modular and Open to Accommodate Specific Needs

For simple customization and more advanced analysis, the open, modular architecture of the kit allows for the easy addition of supplementary monoclonal antibodies against critical cell-surface markers. BD CompBead Plus microparticles can also be used as compensation controls for additional antibody drop-ins to this kit. This is particularly useful when testing for markers that may or may not be expressed on your cells of interest.



Population	#Events	%Parent	%Total
All Events	10,000	####	100.0
Gated cells	8,405	84.0	84.0
SSEA-3+TRA-1-81+	7,583	90.2	75.8
SSEA-3-TRA-1-81-	123	1.5	1.2
P1	671	8.0	6.7
P2	8,262	98.3	82.6
P3	8,219	97.8	82.2

Analysis of H9 hESCs for expression of SSEA-3, TRA-1-81, and SSEA-1. The plot on the upper left shows the scatter plot of the cells established using BD CompBead Plus microparticles. Populations are shown as clusters defined by two markers.

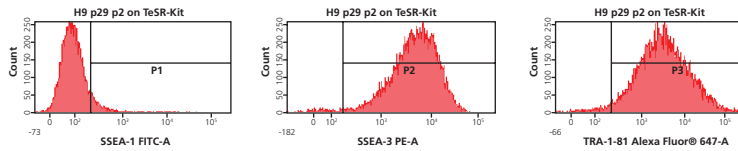
Visit [bdbiosciences.com/stemcellsource](http://bdbiosciences.com/stemcellsource) for more information.

# BD Stemflow Human Pluripotent Stem Cell Sorting and Analysis Kit

## A Resource for Stem Cell Research

BD Biosciences continues to support innovation in the area of stem cell research with more than 25 years of experience in the field. Inspired by in-depth understanding of the complexities of biological experiments, the BD Stemflow Human Pluripotent Stem Cell Sorting and Analysis Kit is designed to make it easier

for researchers to obtain accurate results, increase research productivity, and accelerate discoveries. The data shown here illustrate a typical experiment designed to sort pluripotent cells from H9 hESCs.



Tube Name: Kit			SSEA-1 FITC-A	SSEA-3 PE-A	TRA-1-81 Alexa Fluor® 647
Population	#Events	%Parent	Mean	Mean	Mean
■ Gated cells	8,405	84.0	148	7,759	7,933
■ SSEA-3+TRA-1-81+	7,583	90.2	100	7,662	6,299
■ SSEA-3-TRA-1-81-	123	1.5	2,133	63	230
☒ P1	671	8.0	961	7,081	9,906
☒ P2	8,262	98.3	104	7,893	8,013
☒ P3	8,219	97.8	144	7,863	8,110

Analysis of H9 hESCs for expression of SSEA-3, TRA-1-81, and SSEA-1. Populations are shown as histograms for single-color analysis.

## Ordering Information

Description	Cat. No.
BD Stemflow™ Human Pluripotent Stem Cell Sorting and Analysis Kit (50 tests)	560461

## BD Stemflow Human Pluripotent Stem Cell Sorting and Analysis Kit contents

<b>Monoclonal Antibodies</b>
TRA-1-81 Alexa Fluor® 647
SSEA-1 FITC
SSEA-3 PE
<b>Isotype Controls</b>
Mouse IgM, κ Isotype Control FITC
Rat IgM, κ Isotype Control PE
Mouse IgM, κ Isotype Control Alexa Fluor® 647
<b>Flow Cytometry Compensation Beads</b>
BD™ CompBead Plus Negative Control
BD™ CompBead Plus Anti-Mouse Ig, κ
BD™ CompBead Plus Anti-Rat Ig, κ
<b>Protocols and analysis guidelines</b>
Protocol for cell dissociation
Protocol for cell staining
Protocol for analysis, including creating BD FACSDiva™ templates
Protocol for sorting cells, including creating BD FACSDiva templates
Protocol for cell recovery post-sort



**BD Biosciences**  
 2350 Qume Drive  
 San Jose, CA 95131  
 US Orders: 877.232.8995  
[answers@bd.com](mailto:answers@bd.com)  
[bdbiosciences.com](http://bdbiosciences.com)

For Research Use Only. Not for use in diagnostic or therapeutic procedures.  
 Alexa Fluor® is a registered trademark of Molecular Probes, Inc.  
 BD, BD Logo and all other trademarks are property of Becton, Dickinson and Company. © 2011 BD  
 23-10520-01