

Datasheet for ABIN2689908  
**anti-SSEA-4 antibody**



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## Overview

Quantity:	0.1 mg
Target:	SSEA-4
Reactivity:	Human, Mouse
Host:	Mouse
Clonality:	Monoclonal
Application:	Flow Cytometry (FACS), Western Blotting (WB), BioImaging (BI)

## Product Details

Brand:	BD Pharmingen™
Immunogen:	Human Teratocarcinoma Cell Line
Clone:	MC813
Isotype:	IgG3 kappa
Characteristics:	<p>The MC813-70 monoclonal antibody reacts with Stage-Specific Embryonic Antigen-4 (SSEA-4), a carbohydrate epitope on the major ganglioside, but not the neutral glycolipid, of human teratocarcinoma cells. As its name implies, the expression of SSEA-4 is stage-specific and can be used to characterize embryonic cells and monitor their differentiation. However, its expression pattern differs in the human and mouse. In the human, SSEA-4 is found on teratocarcinoma (embryonal carcinoma or EC), embryonic inner cell mass (ICM), embryonic stem (ES) cells, and the K562 erythromyeloid leukaemia cell line. As human stem cells undergo differentiation, SSEA-4 expression is lost. In the mouse, SSEA-4 is found on oocytes and early cleavage-stage embryos, and primitive ectoderm, but not on EC, ICM, or ES cells. In some cases, SSEA-4 expression appears upon differentiation of mouse EC or ES cells.</p>

## Product Details

Immunofluorescent staining of human EC and ES cell lines. The 2102Ep cell line (clone 2/A6, Josephson et al, 2007) was obtained from Dr. Peter W. Andrews, the University of Sheffield, Sheffield, UK, and the H9 cell line (Thomson et al, 1998) was obtained from WiCell, Madison, WI. The cells were cultured, fixed, and stained with Purified Mouse anti-SSEA-4 monoclonal antibody (pseudo-colored green) according to the Recommended Assay Procedure. The second-step reagent was Alexa Fluor® 647 goat anti-mouse Ig (Invitrogen) and counter-staining was with Hoechst 33342 (pseudo-colored blue). The images were captured on a BD Pathway™ 855 Cell Analyzer and merged using BD Attovision™ software. LEFT PANEL: 2102Ep cells, 20X. MIDDLE PANEL: H9 cells, 20X. RIGHT PANEL: H9 cells, 4X.

BD Pharmingen™ Purified Mouse anti-SSEA-4 - Purified - Clone MC813-70 - Isotype Mouse IgG3, κ - Reactivity Hu, Ms - 0.1 mg

Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
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## Target Details

Target:	SSEA-4
Alternative Name:	SSEA-4 ( <a href="#">SSEA-4 Products</a> )

## Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Restrictions:	For Research Use only

## Handling

Concentration:	0.5 mg/mL
Buffer:	Aqueous buffered solution containing ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C
Storage Comment:	Store undiluted at 4°C.

## Publications

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- Product cited in: Josephson, Ording, Liu, Shin, Lakshmipathy, Toumadje, Love, Chesnut, Andrews, Rao, Auerbach: "Qualification of embryonal carcinoma 2102Ep as a reference for human embryonic stem cell research." in: **Stem cells (Dayton, Ohio)**, Vol. 25, Issue 2, pp. 437-46, (2007) ([PubMed](#)).
- Son, Park, Kang, Park, Choi, Lim, Lee, Lee, Ko, Kim, Ko, Yoon, Lee, Seong, Moon, Ryu, Hong: "Heat shock 70-kDa protein 8 isoform 1 is expressed on the surface of human embryonic stem cells and downregulated upon differentiation." in: **Stem cells (Dayton, Ohio)**, Vol. 23, Issue 10, pp. 1502-13, (2005) ([PubMed](#)).
- Draper, Pigott, Thomson, Andrews: "Surface antigens of human embryonic stem cells: changes upon differentiation in culture." in: **Journal of anatomy**, Vol. 200, Issue Pt 3, pp. 249-58, (2002) ([PubMed](#)).
- Thomson, Itskovitz-Eldor, Shapiro, Waknitz, Swiergiel, Marshall, Jones: "Embryonic stem cell lines derived from human blastocysts." in: **Science (New York, N.Y.)**, Vol. 282, Issue 5391, pp. 1145-7, (1998) ([PubMed](#)).