

Products for Culturing Stem Cells

CORNING

Human Embryonic Stem Cells

Human embryonic stem (hES) cells are pluripotent cells derived from the inner cell mass of a blastocyst. These cells can either self-renew, thereby maintaining their pluripotency, or differentiate into all three germ layers depending upon the culture conditions. Induced pluripotent stem (iPS) cells, which are similar in potential to hES cells, have been generated by transfecting adult cells. iPS cells, like hES cells, can form all three germ layers as well as self-renew. Tremendous hope is associated with the potential application of hES and iPS cells in cell therapy and regenerative medicine because of their ability to differentiate into multiple, clinically useful cell types. Defined culture conditions, high affinity antibodies, and the appropriate analysis tools are essential to realizing the potential of hES and iPS cells.

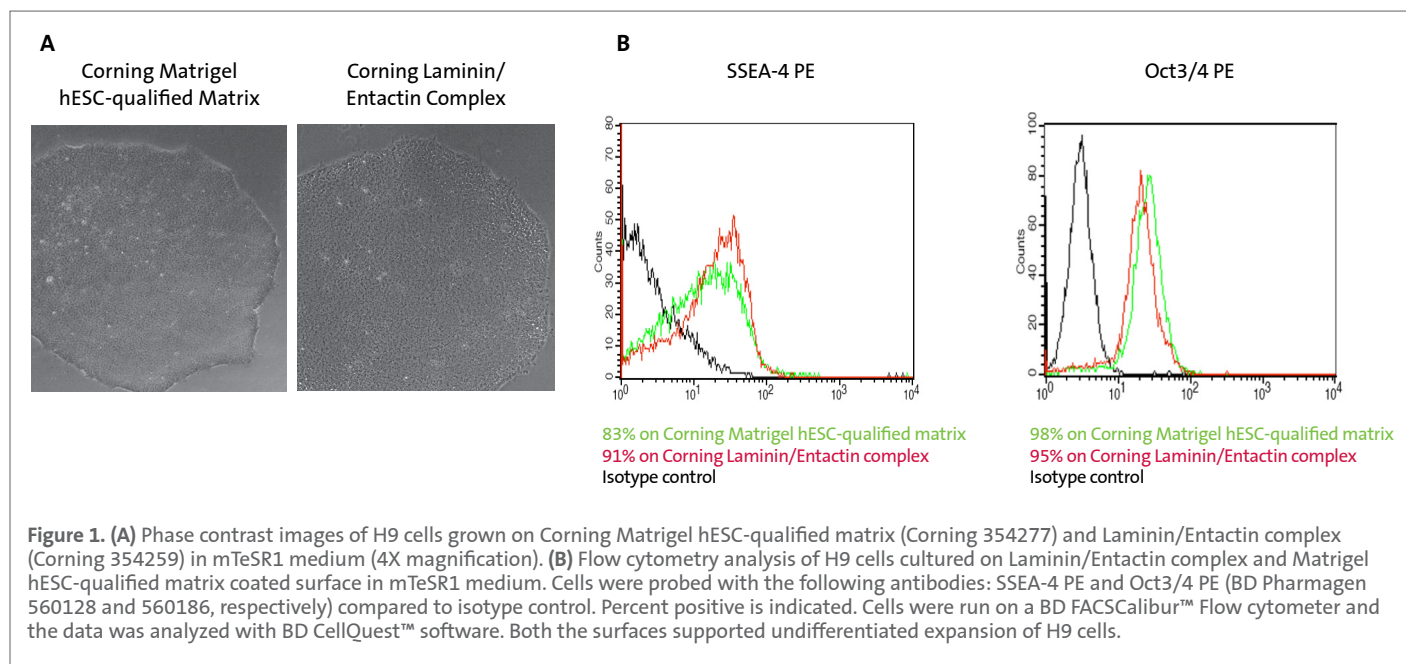
A culture environment for hES cells consisting of both a serum-free, defined medium and a cell culture surface specifically qualified for hES cells saves researchers time and resources normally spent qualifying reagents. Corning® Matrigel® matrix, coupled with a variety of culture media, has been widely

accepted as an alternative substrate to feeder-dependent culture of hES cells. Corning Matrigel Matrix is a reconstituted basement membrane isolated from the Engelbreth-Holm-Swarm (EHS) mouse sarcoma. STEMCELL Technologies has commercially developed and optimized WiCell Research Institute's mTeSR®1 medium formulation to standardize feeder-independent hES cell culture. mTeSR1 is complete, defined and serum-free, and has been designed to maintain and expand hES cells in an undifferentiated state when used with Corning Matrigel hESC-qualified matrix as a substrate (Figure 1).

An alternative surface for hES cell culture is Corning Laminin/Entactin complex (Figure 1). Corning Laminin/Entactin complex, with a purity greater than or equal to 90%, is a more defined surface that has been shown to support the maintenance of undifferentiated hES cells. Unlike Matrigel hESC-qualified matrix, this surface is not specifically qualified for maintenance of undifferentiated hES cells.

For a complete listing of products available from Corning for stem cell research, visit www.corning.com/lifesciences.

Surfaces for hES Cell Culture



Stem Cell Type									
Embryonic	Neuronal	Hematopoietic	Mesenchymal				Description	Qty/Case	Cat. No.
			Adipogenic	Chondrogenic	In Vivo	Osteogenic			
Corning® Extracellular Matrices (ECMs)									
✓							Corning Matrigel® hESC-qualified matrix	5 mL	354277
✓					✓		Corning Matrigel Basement Membrane matrix	5 mL 10 mL	356234 354234
✓							Laminin/Entactin complex	10.5 mg	354259
	✓						Laminin, mouse	1 mg	354232
	✓						Ultrapure Laminin, mouse (entactin-free)	1 mg	354239
	✓						Corning Fibronectin, human	1 mg 5 mg	354008 356008
Corning BioCoat® Cellware									
✓							Corning BioCoat® Matrigel Matrix plates for ES Cell Culture	6-well	354671
	✓						Corning BioCoat Poly-L-Ornithine/ Laminin plates	6-well 24-well 96-well	354658 354659 354657
Corning Growth Factors, Cytokines, and Media Additives*									
✓	✓					✓	Fibroblast Growth Factor (bFGF), human recombinant	10 µg 5 x 10 µg 10 x 10 µg	354060 356060 356061
	✓					✓	Epidermal Growth Factor (EGF), human recombinant	100 µg 10 x 100 µg	354052 356052
	✓					✓	EGF, mouse natural (culture grade)	100 µg 10 x 100 µg	354001 356001
	✓					✓	EGF, mouse natural (receptor grade)	100 µg 5 x 100 µg	354010 356010
				✓			Transforming Growth Factor-β1 (TGF-β1), human natural	1 µg 5 x 1 µg 5 x 2 µg	354039 356039 356040
							IL-3 Culture Supplement, mouse	25 mL	354040
	✓			✓			ITS Premix	5 mL 20 mL	354351 354350
	✓			✓			ITS+ Premix	20 mL	354352
Corning Cell Recovery Reagents									
✓							Dispase	100 mL	354235
✓							Cell Recovery Solution	100 mL	354253

*All growth factor, cytokine, and media additive products listed have been tested for biological activity. For more information on our testing, please contact Scientific Support (ScientificSupport@corning.com).

Stem Cell Type							
Embryonic	Neuronal	Hematopoietic	Mesenchymal	Description	Qty/Pack	Qty/Case	Cat. No.
Falcon® Cultureware							
				Falcon Cell Culture Flasks			
	✓	✓	✓	12.5 cm ² canted neck, 25 mL, plug-seal cap	10	100	353018
				12.5 cm ² canted neck, 25 mL, vented cap	10	100	353107
	✓	✓	✓	25 cm ² canted neck, 50 mL, plug-seal cap	20	200	353014
				25 cm ² canted neck, 50 mL, vented cap	20	100	353108
				25 cm ² canted neck, 70 mL, plug-seal cap	20	200	353082
				25 cm ² canted neck, 70 mL, vented cap	20	100	353109
	✓	✓	✓	75 cm ² straight neck, 250 mL, plug-seal cap	5	100	353024
				75 cm ² straight neck, 250 mL, vented cap	5	100	353110
				75 cm ² canted neck, 250 mL, plug-seal cap	5	60	353135
				75 cm ² canted neck, 250 mL, vented cap	5	60	353136
	✓	✓	✓	150 cm ² canted neck, 600 mL, plug-seal cap	5	40	355000
				150 cm ² canted neck, 600 mL, vented cap	5	40	355001
	✓	✓	✓	175 cm ² straight neck, 750 mL, plug-seal cap	5	40	353028
				175 cm ² straight neck, 750 mL, vented cap	5	40	353112
	✓	✓	✓	225 cm ² canted neck, 800 mL, plug-seal cap	5	30	353139
				225 cm ² canted neck, 800 mL, vented cap	5	30	353138
				Falcon Cell Culture Plates			
✓	✓	✓	✓	6-well flat bottom with lid	1	50	353046
✓	✓	✓	✓	12-well flat bottom with lid	1	50	353043
✓	✓	✓	✓	24-well flat bottom with lid	1	50	353047
✓	✓	✓	✓	48-well flat bottom with lid	1	50	353078
✓	✓	✓	✓	96-well flat bottom with lid	1	50	353072
		✓		96-well U-bottom with lid	1	50	353077
	✓	✓	✓	384-well flat bottom with lid	5	50	353961
				384-well black/clear with lid	5	50	353962
				384-well white/clear with lid	5	50	353963
				384-well white with lid	5	50	353988
				Falcon Cell Culture Dishes			
✓	✓	✓	✓	35 x 10 mm Easy-Grip dishes	20	500	353001
✓	✓	✓	✓	60 x 15 mm standard dishes	20	500	353002
				60 x 15 mm Easy-Grip dishes	20	500	353004
				60 x 15 mm style center well dishes	20	500	353037
✓	✓	✓	✓	100 x 20 mm standard dishes	20	200	353003
✓	✓	✓	✓	150 x 25 mm gridded dishes	10	100	353025
				Falcon CultureSlides			
✓	✓	✓	✓	4-well	12	24	354114
✓	✓	✓	✓	4-well	12	96	354104
✓	✓	✓	✓	8-well	12	24	354118
✓	✓	✓	✓	8-well	12	96	354108
Falcon Accessories							
				Falcon Cell Scrapers			
✓	✓	✓	✓	18 cm handle, 1.8 cm blade	1	100	353085
✓	✓	✓	✓	25 cm handle, 1.8 cm blade	1	100	353086
✓	✓	✓	✓	25 cm handle, 3.0 cm blade	1	100	353089
✓	✓	✓	✓	40 cm handle, 3.0 cm blade	1	100	353087
Falcon Pipets							
✓	✓	✓	✓	Serological pipets Individually wrapped and bulk packaged	Visit www.corning.com/lifesciences for more information on our entire line of Falcon Pipets and Pipettors.		
✓	✓	✓	✓	Aspirating pipets			
✓	✓	✓	✓	Pipettors			

How to Purchase: For specific availability in your region and purchasing options, terms and conditions of sale, customer/product support, and certificates, visit www.corning.com/how-to-buy.

Warranty/Disclaimer: Unless otherwise specified, all products are for research use or general laboratory use only.* Not intended for use in diagnostic or therapeutic procedures. Not for use in humans. These products are not intended to mitigate the presence of microorganisms on surfaces or in the environment, where such organisms can be deleterious to humans or the environment. Corning Life Sciences makes no claims regarding the performance of these products for clinical or diagnostic applications. *For a listing of US medical devices, regulatory classifications or specific information on claims, visit www.corning.com/resources.

Corning's products are not specifically designed and tested for diagnostic testing. Many Corning products, though not specific for diagnostic testing, can be used in the workflow and preparation of the test at the customers discretion. Customers may use these products to support their claims. We cannot make any claims or statements that our products are approved for diagnostic testing either directly or indirectly. The customer is responsible for any testing, validation, and/or regulatory submissions that may be required to support the safety and efficacy of their intended application.

CORNING

Corning Incorporated
Life Sciences

www.corning.com/lifesciences

NORTH AMERICA

t 800.492.1110
t 978.442.2200

ASIA/PACIFIC

Australia/New Zealand
t 61 427286832

Chinese Mainland
t 86 21 3338 4338

India

t 91 124 4604000

Japan

t 81 3-3586 1996

Korea

t 82 2-796-9500

Singapore

t 65 6572-9740

Taiwan

t 886 2-2716-0338

EUROPE

CSEurope@corning.com

France

t 0800 916 882

Germany

t 0800 101 1153

The Netherlands

t 020 655 79 28

United Kingdom

t 0800 376 8660

All Other European Countries

t +31 (0) 206 59 60 51

LATIN AMERICA

grupoLA@corning.com

Brazil

t 55 (11) 3089-7400

Mexico

t (52-81) 8158-8400

The information contained within is accurate as of the date of publication and subject to change without notice.

For a listing of trademarks, visit www.corning.com/trademarks. All other trademarks are the property of their respective owners.

© 2012-2025 Corning Incorporated. All rights reserved. 5/25 CLS-DL-CC-040 REV2