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Gibco™

Essential 8™ Medium

Essential 8™ Medium is a xeno-free and feeder-free medium specially formulated for the growth and expansion of human pluripotent Read more

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Catalog number A1517001

Price (EUR) / 500 mL

322,00

1

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Product Overview | Figures | Videos | Recommendations | Documents | FAQ | Citations & References

Essential 8™ Medium is a xeno-free and feeder-free medium specially formulated for the growth and expansion of human pluripotent stem cells (PSCs). Originally developed by Guokai Chen et al. in the laboratory of James Thomson (published as 'E8') and validated by Cellular Dynamics International, Essential 8™ Medium has been extensively tested and proved to maintain pluripotency in multiple iPSC lines. In addition, Essential 8™ Medium has been used to scale production of iPSCs and shown to support iPSC growth for >50 passages without any signs of karyotypic abnormalities, along with maintaining the ability of

- Consistent—reduced variability compared to existing feeder-free culture media
- Robust—reliable and robust cultures with a xeno-free, cGMP, 8-component medium
- Cost effective—economical and scalable PSC culture compared to other feeder-free media

Reduced Variability
Essential 8™ Medium is xeno-free and contains only the 8 essential components needed for stem cell culture. Unlike other media that contain over 20 highly variable ingredients, Essential 8™ Medium is produced under cGMP and has an optimized formulation and growth factor levels to help ensure maximum cell health, pluripotency, and growth, with minimal variability.

Reliable and Robust Cultures
Essential 8™ Medium has been show to support pluripotent stem cell growth and provide cultures with superior morphology and growth kinetics compared to other feeder systems.

Cost Effective
Essential 8™ Medium is provided in a convenient two-component kit (500 ml basal medium & 10 ml supplement), and when used with vitronectin (VTN-N), provides a cost effective, defined system for feeder-free culture of human pluripotent stem cells (PSCs).

Essential 8™ Medium is commercialized in partnership with Cellular Dynamics International.

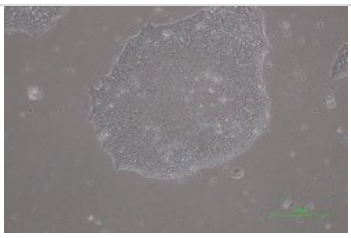
For Research Use Only. Not for use in diagnostic procedures.

Specifications

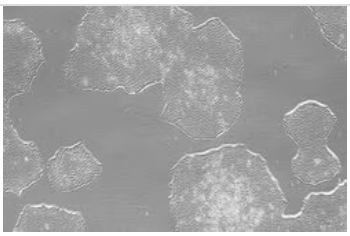
Cell Type	Embryonic Stem Cells (ESCs), Induced Pluripotent Stem Cells (iPSCs)
Classification	Xeno-free
Culture Type	Feeder-free Stem Cell Culture (Human, iPS - Induced Pluripotent Stem, Embryonic)
Form	Liquid
Product Type	Stem Cell Media
Serum Level	Serum-free
With Additives	Phenol Red
Manufacturing Quality	cGMP for medical devices, 21 CFR Part 820 and ISO 13485
Product Line	Essential 8™
Quantity	500 mL
Shipping Condition	Supplement - dry ice, Basal - ambient
Species	Human
Unit Size	500 mL

Contents & Storage

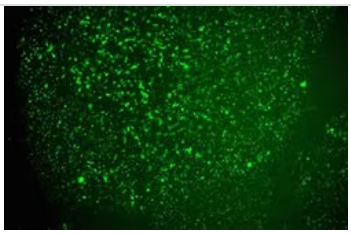
- 500 mL basal medium (store at 2—8°C and protect from light)
- 10 mL supplement (store at -5 to -20°C and protect from light)



iPSC Morphology



iPSC imaged on EVOS M5000 microscope



Tra-1-81 Staining

Videos

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Penicillin-Streptomycin (10,000 U/mL)

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Safety Data Sheets

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Product Information

Manuals

- User Guide: Essential 8 Medium
- Product Info. Essential 8™ Adaptation Kit
- Protocol: Culturing PSCs in Essential 8 Medium
- Manual: Geltrex vs. Recombinant Vitronectin (Japanese)
- Protocol: Essential8 Adaptation Scheme (Japanese)
- User Guide: Adaptation of hPSCs from Different Culture Systems to Essential 8 Medium or Essential 8 Flex Medium
- Manual: Culturing PSCs in Essential 8 Medium (Japanese)

Scientific Resources

Posters

- Poster: Development of Feeder-Free PSC Culture System Enabling Translational & Clinical Research
- Poster: Image-based assessment of psc quality during early ipsc establishment
- Posters: Power Of Stem Cells
- Poster: Development of feeder-free PSC culture system enabling translational & clinical research

Brochures

- Pluripotent Stem Cell Product Guide
- Brochure: Gibco Essential 8 Media

Limited Use Label Licenses (LULL)

Protocols

- Generation of Human Induced Pluripotent Stem Cells (hiPSCs) from Fibroblasts using Episomal Vectors
- Culturing Pluripotent Stem Cells (PSCs) in Essential 8™ Medium

Frequently asked questions (FAQs)

- What media do you recommend for standard single-cell cloning of iPSCs?
- When should I start feeding my cells with Gibco Essential 8 Flex Medium?
- Can I frequently change the feeding schedule with Gibco Essential 8 Flex Medium?
- How has the original Gibco Essential 8 Medium formulation been modified to enable a more flexible culture schedule with Gibco Essential 8 Flex Medium?
- What other dissociation reagents have been tested with Gibco Essential 8 Flex Medium?

View more

Citations & References (4)

Search citations by name, author, journal title or abstract text

Search

Citations & References **Abstract**

Inhibition of SARS-CoV-2 Infections in Engineered Human Tissues Using Clinical-Grade Soluble Human ACE2.

Authors: Monteil V, Kwon H, Prado P, Hagelkrüys A, Wimmer RA, Stahl M, Leopoldi A, Garreta E, Hurtado Del Pozo C, Prosper F, Romero JP, Wirnsberger G, Zhang H, Slutsky AS, Conder R, Montserrat N, Mirazimi A, Penninger JM

Journal: Cell

PubMed ID: 32333836

'We have previously provided the first genetic evidence that angiotensin converting enzyme 2 (ACE2) is the critical receptor for severe acute respiratory syndrome coronavirus (SARS-CoV), and ACE2 protects the lung from injury, providing a molecular explanation for the severe lung failure and death due to SARS-CoV infections. ACE2 has now ... More

Defined Essential 8™ Medium and Vitronectin Efficiently Support Scalable Xeno-Free Expansion of Human Induced Pluripotent Stem Cells in Stirred Microcarrier Culture Systems.

Authors: Badenes SM, Fernandes TG, Cordeiro CS, Boucher S, Kuninger D, Vemuri MC, Diogo MM, Cabral JM,

Journal: PLoS One

PubMed ID: 26999816

Human induced pluripotent stem (hiPS) cell culture using Essential 8™ xeno-free medium and the defined xeno-free matrix vitronectin was successfully implemented under adherent conditions. This matrix was able to support hiPS cell expansion either in coated plates or on polystyrene-coated microcarriers, while maintaining hiPS cell functionality and pluripotency. Importantly, scale-up ... More

de Boer J, Watt FM,

Journal: Sci Rep

PubMed ID: 26757610

on a topographical library containing over 1000 different features in medium lacking animal products (xeno-free). Using high content ... More

A Human Pluripotent Stem Cell-based Platform to Study SARS-CoV-2 Tropism and Model Virus Infection in Human Cells and Organoids.

Authors: Yang L, Han Y, Nilsson-Payant BE, Gupta V, Wang P, Duan X, Tang X, Zhu J, Zhao Z, Jaffré F, Zhang T, Kim TW, Harschnitz O, Redmond D, Houghton S, Liu C, Naji A, Ciceri G, Guttikonda S, Bram Y, Nguyen DT, Cioffi M, Chandar V, Hoagland DA, Huang Y, Xiang J, Wang H, Lyden D, Borczuk A, Chen HJ, Studer L, Pan FC, Ho DD, tenOever BR, Evans T, Schwartz RE, Chen S

Journal: Cell Stem Cell

PubMed ID: 32579880

SARS-CoV-2 has caused the COVID-19 pandemic. There is an urgent need for physiological models to study SARS-CoV-2 infection using human disease-relevant cells. COVID-19 pathophysiology includes respiratory failure but involves other organ systems including gut, liver, heart, and pancreas. We present an experimental platform comprised of cell and organoid derivatives from ... More

4 total citations

Other products to consider

CTS™ Essential 8™ Medium

Catalog number: A2656101

422,00 / 500 mL

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Essential 8™ Flex Medium Kit

Catalog number: A2858501

402,00 / 1 kit

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