

PRIME-XV Tumorsphere SFM

Catalog #	Product	Size
91130	PRIME-XV Tumorsphere SFM	100 mL liquid

Intended Use

PRIME-XV Tumorsphere SFM is intended for use in the formulation of tumorspheres from cancer initiating/ stem cells under serum-free conditions. This medium should be supplemented with Heparin and Hydrocortisone prior to use and can be used with additional factors for the desired application.

Product Description

PRIME-XV Tumorsphere SFM (Serum-Free Media) is a serum-free medium optimized for the tumorsphere formation of cancer initiating/ stem cells. This product does not contain antibiotics.

Quality Assurance

All quality control test results are reported on a lot specific Certificate of Analysis which is available at www.irvinesci.com or upon request.

Shipping

This product is shipped with dry ice. Upon receipt, store immediately at the temperature recommended below.

Storage Instructions and Stability

Upon receipt, store the medium at or below -10°C in a manual defrost freezer. Unopened medium is stable for 24 months from date of manufacture, as indicated on label, when stored at or below -10°C in a manual defrost freezer. PRIME-XV Tumorsphere SFM can be aliquoted and stored at or below -10°C in a manual defrost freezer for up to 3 months. When ready to use, thaw this medium overnight at 2-8°C in the dark. PRIME-XV Tumorsphere SFM should be used within one week when stored at 2-8°C and protected from light. Not validated for use beyond the unopened expiry shelf life. Repeated freeze thaw cycles should be avoided.

Precautions

This product is for research use or further manufacturing use only. It is not for injection or diagnostic procedures. The safety and efficacy of this product in diagnostic or other clinical uses has not been established. This reagent should not be used beyond the expiration date. Results may vary due to variations among human cancer initiating/stem cells derived from different donors.

This product contains human transferrin, which has been tested and found negative for antibodies to HIV-1/2, hepatitis B surface antigen (HBsAg). However, the medium should be handled as if potentially infectious. Safe laboratory procedures

should be followed and protective clothing should be worn when handling this medium. The acute and chronic effects of over-exposure to this medium are unknown.

Directions for Use

The following protocol is optimized for tumorsphere formation using HeLa, MCF-7 and A549 cells. Allow frozen media to thaw at room temperature for a few hours or store overnight at 2-8°C. Media should be pre-warmed before introducing cells. Pre-warm media at 37°C for no more than 30 minutes. Pre-warming can be done before or after adding supplements. Media is stable at 2-8°C for 1 week.

Preparation complete medium

1. The following supplements need to be added to the PRIME-XV Tumorsphere SFM (IS, Catalog #91130) prior to use:
2U/mL of Heparin (Sigma Aldrich®, # H3149)
0.5µg/mL Hydrocortisone (Sigma Aldrich®, # H0135)

Tumorsphere Formation Assay

1. Pre-warm complete PRIME-XV Tumorsphere SFM to 37°C for no more than 30 minutes. Avoid repeated warming of medium, as it may reduce product performance.
2. Remove spent media from T-75 flask culture and gently rinse cells once with 10mL PBS for each T-75 flask.
3. Gently detach cells from culture dish with appropriate volume of room temperature TrypLE™ Express or equivalent solution to each T-75 flask. Tilt the flask in all directions to disperse the cell dissociation solution evenly over the cells.
4. Incubate the cells at 37°C, 5% CO₂ incubator. Monitoring periodically for cell detachment by observing the cells under the microscope. Cells will start to round and detach. Tap the side of the flask to aid the detachment of the cells and return culture to the incubator. Repeat the above process until at least 90% of cells are fully detached. This cell detachment process takes approximately 5-10 minutes.
5. Add 5mL of MEM NEAA (IS, Catalog #9130) medium to the flask. Disperse the cells by pipetting the media over the entire growing surface of the flask and transfer the contents to a 15mL conical tube. Take a cell count prior to centrifugation.
6. Centrifuge cells down at 400g for 5 minutes. Aspirate off supernatant.
7. Gently resuspend cell pellet in appropriate volume of pre-warmed PRIME-XV Tumorsphere SFM and transfer to ultra-low adhesion plates. Recommended cells for plating can vary between 5×10^3 to 6×10^5 cells per well in a six-well plate.
8. Incubate at 37°C, 5% CO₂ incubator. Sphere formation should occur within 3-10 days.

*TrypLE™ Express is a trademark of Life Technologies Corporation, Carlsbad, CA.

Data

A

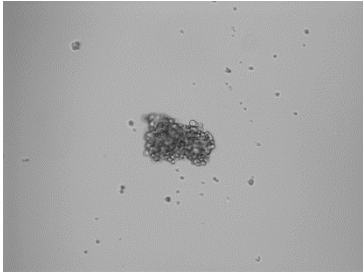
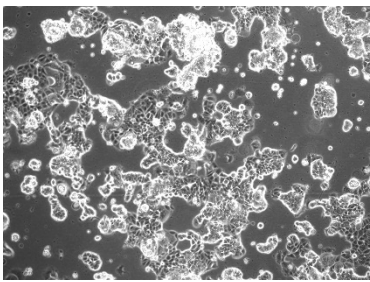


Figure 1. PRIME-XV Tumorsphere SFM (A) supports tumorsphere formation of MCF-7 cells, as compared to control 10% serum-containing medium (B). Images were taken at 10X magnification.

B



A

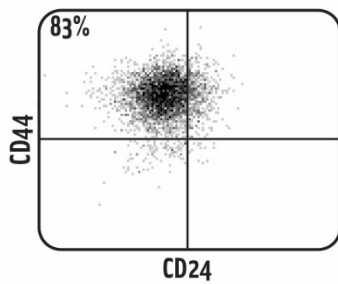
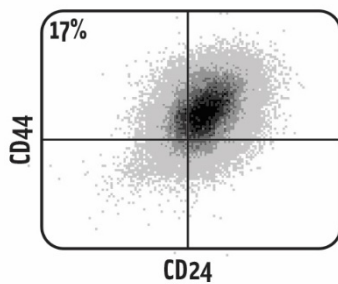


Figure 2. Alizarin low cytometry analysis of MCF-7 cells cultured for 7 days in PRIME-XV Tumorsphere SFM (A) showed a five-fold enrichment of CD44⁺ CD24^{low} cells compared to CD44⁺ CD24^{low} cells in control 10% serum-containing DMEM (B).

B



Related Products

Catalog #	Product	Size
91139	PRIME-XV FreezIS	10 mL and 100 mL liquid

Technical Support

CONTACT US

For more information or assistance contact Customer Service at:

- Email: tmrequest@irvinesci.com
- Direct line: +1 800 577 6097

WEBSITE RESOURCES

Visit the website at www.irvinesci.com for technical resources and information including:

- Safety Data Sheets (SDS)
- Certificate of Analysis (CoA) (when available)
- FAQs
- Product literature
- Complete list of offices and contact information by country

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