



CM-ACF - Freeze medium

for Human and Animal cell lines

CM-ACF represents a cryopreservation medium developed by CLS enabling the long-time cryopreservation of Human and Animal cells and cell lines at -196°C . Although CM-ACF has been established and used for a few months now, this cryomedium, which is completely free of serum or animal-derived components, shows excellent results with respect to cell viability.

CM-ACF is

- free of serum and free of Animal-derived components
- chemically defined
- Ready-to-use and easy-to-use
- suitable for long-time cryopreservation
- an automatic freezer is not necessary
- stable > 6 months



Experimental viabilities using CM-ACF

Cell line	Viability in %, cryopreserved at -196°C
HaCaT	95
SW-1353	96



Each lot of CM-ACF is being tested for sterility and absence of Mycoplasma and Bacteria. The manufacturing process and documentation are performed according to **ISO9001:2008** based on GLP under strict quality control.

Ordering Information

Cat.-No.	Designation	Size
800625	CM-ACF, Freeze medium for Mammalian cells, chemically defined	25 mL
800650	CM-ACF, Freeze medium for Mammalian cells, chemically defined	50 mL

Ingredients

CM-ACF contains DMSO, glucose, salts; buffering capacity pH = 7.2 to 7.6.

Storage of CM-ACF

At +2°C to +8°C (refrigerator) in the dark.

Freezing as well as warming up to +37°C minimize the quality of the product.

Application

To achieve best results, the cells should be in the log-phase. Harvest cells as usual.

Collect an aliquot and count the cells.

The final cell concentration should be between 2 to 4 x 10⁶ cells/cryovial.

Centrifuge the cell suspension for 3 min at 300xg and 20-25°C and discard the supernatant.

Resuspend the cell pellet using the calculated volume of ice cold CM-ACF.

Distribute cell aliquots into appropriate cryovials (1.5 ml) and close them tightly.

Do not allow the suspension to warm up to room temperature.

Store at -14 to -20°C for 40 minutes.

Transfer the cryovials to -80°C and leave for a minimum of one hour or overnight.

Transfer the cryovials to the liquid nitrogen container.

At < -180°C, unlimited storage possible.

Control of successful freezing

It is recommended to control the freezing process by thawing one cryovial 24 hrs after the cryovial had been placed into the liquid nitrogen container:

Take one cryovial out of the liquid nitrogen container according to the precautions for working with liquid nitrogen. Caution: leaky cryovials may explode!

Thaw the frozen cells in the cryovial as fast as possible in a water bath (37°C) under vivid agitation.

A small ice clump should be left inside when transferring the cryovial to the sterile hood.

Disinfect the cryovial on the outside using 70% ethanol.

Carefully open the cryovial and pipette the complete contents into a 15-ml centrifuge tube already containing the appropriate culture medium.

The freeze medium should be diluted 1:5 - 1:10 in the culture medium.

Remove the cryoprotective chemicals by centrifugation. Please follow the recommendations for each cell line on the appropriate data sheet. With a few cell lines, the centrifugation step should be performed 24 hrs following the thawing process later.

Cultivate the cells as recommended on the respective data sheet (e.g. 37°C; 5% CO₂).

Additional cryomedia available at CLS

Cat.-No.	Designation	Size
800125	CM-1, Freeze medium for Mammalian cells, contains Serum	25 mL
800150	CM-1, Freeze medium for Mammalian cells, contains Serum	50 mL

Disclaimer

This product is for in-vitro use only. Not intended for clinical or diagnostic applications.