CRYOPRESERVE - Which Cryopreservation Medium Should You Use?

Do you want to freeze cells as aggregates or single cells?

Cell Aggregates

Do you need an animal component-free (ACF) and cGMP medium?

Yes

CryoStor® CS10 is a serum-free, ACF and defined cryopreservation medium that works well for freezing hPSCs as cell aggregates. CryoStor® CS10 is cGMP-manufactured with USP grade components.

No

mFreSR™ is a defined, serum-free cryopreservation medium designed for freezing hPSCs as cell aggregates. mFreSR™ is optimized for cells cultured in TeSR™ maintenance media.

Single Cells

Why would I want to freeze cells as single cells?
Freezing cells as single cells means that each cell is in direct contact with the freezing medium, resulting in optimal viability upon thawing. Conversely, cells in aggregates are not uniformly exposed to the freezing medium as exterior cells are in direct contact, while cells in the center are not in direct contact at all.

Did You Know?

Single cell cryopreservation allows:
- Cell counting, resulting in improved accuracy and consistency between frozen vials of cells
- Easier monitoring of cell viability

Isn't long-term serial passaging as single cells discouraged?
Yes, we generally do not recommend serial passaging as single cells, due to an increased risk of genetic abnormalities. However, hPSCs cryopreserved as single cells can be used to quickly re-establish colonies after thawing and plating in TeSR™ media containing 10 µM Y-27632. This results in improved post-thaw recovery, viability and consistency, allowing you to save time when thawing out vials!

Did You Know?

Single cells can be use for applications such as:
- Bioreactor culture
- Seeding monolayers
- FACS
- EB generation
- Other end point analyses

Ok, then let's do it!
FreSR™-S is a defined, serum-free and ACF cryopreservation medium designed for freezing hPSCs as single cells. FreSR™-S is optimized for cells cultured in TeSR™ maintenance media.

Do you need an animal component-free (ACF) medium?

Yes

No

Even if you don't require an ACF cryopreservation medium, we recommend FreSR™-S for freezing cells as single cells.

CryoStor® CS10

mFreSR™

FreSR™-S