

Thermo Scientific HyClone CDM4PERMAb™

Thermo Scientific HyClone CDM4PERMAb is a chemically-defined medium containing no animal derived components. This high performance cell culture medium has been developed to increase process yields in the production of human antibodies and recombinant proteins using PER.C6® technology. It has been successfully tested in a variety of applications, including fed-batch bioreactors.

Features

- Animal Derived Component Free
- Chemically-defined formulation
- Metabolically designed for high cell yield and recombinant protein production
- Allows for direct or sequential adaptation
- Component traceability
- Manufactured under cGMP

Specifications

- Contains Pluronic® F-68 (Liquid Only)
- Does not contain L-glutamine
- Does not contain Phenol Red

QC Testing

Test	Specification
Appearance	Clear Yellowish Solution
Osmolality	290-340 mOsm/kg
pH	7.0-7.4
Sterility	No Growth
Endotoxin	<1.0 EU/mL
Application Testing	Growth Promotion

Suggested Preparation

Reconstitution of HyClone CDM4PERMAb Dry Powdered Medium (SH30872)

- 1 While stirring, add SH30872 to cell culture grade water (20-25°C) at 90 percent of final preparation volume (17.3 g/L). Mix until dissolved. Medium should be a clear, golden solution at this point.
- 2 Add 0.5 g/L of Pluronic® F-68 and 3.2 g/L of sodium bicarbonate. Ensure each component has completely dissolved before adding the next component.
- 3 Bring vessel to final volume with culture grade water. Allow solution to mix for 10-20 minutes.
- 4 Adjust pH to between 7.0 and 7.2 by adding 1 N NaOH, or 1N HCl dropwise to solution.
- 5 Check osmolality. Expected value is 290-340 mOsm/kg.
- 6 Sterile filter into desired container using a 0.2 micron sterile filter.

Preparation Notes

HyClone CDM4PERMAb DPM (SH30872) does not contain L-glutamine. Recommended concentration: 4mM. Liquid and DPM CDM4PERMAb should be stored at 2-8°C away from light.



Culture Recommendations

Cultures should be incubated at 37°C in a 5 percent CO₂ environment.

- 1 Maintain stock cells in classical medium with serum supplementation.
- 2 Upon subsequent passage, following trypsinization, seed two new t-flasks. One flask will be maintained at the current serum concentration as a back-up, while the other will be reduced to half that serum concentration. This serum depletion process is repeated until reaching a concentration of 2.5% FBS.
- 3 Re-plate cells at 2.5% FBS and incubate for 24 hours to allow attachment and spreading.
- 4 Following the 24-hour incubation, replace the serum-containing medium with CDM4PERMAb. Cells will not attach firmly and should be passaged without trypsin.
- 5 A passage schedule of 3 to 4 days should be maintained for 2 to 3 passages. Adaptation is complete once cells have transitioned to a doubling rate of 24 h or less per doubling.

Cell Maintenance

Maintain adapted cells by establishing a passage schedule that allows the cells to be passed while in log growth phase. PER.C6® (CruCell NV, The Netherlands) cells cultivated in CDM4PERMAb for routine maintenance should be subcultured every 72 to 96 h. The passage schedule and seeding density may be adjusted to optimize performance. The recommended population seeding density of new cultures for general maintenance is 0.3 x10⁶ cells/mL. The culture viability of an adapted culture should remain greater than

90%. However, during adaptation from serum-containing medium viabilities may be slightly lower than 90%. Cells should exhibit a population doubling time of approximately 24 to 30 h. If the recommended population seed density of 0.3 x10⁶ cells/mL is used, cultures typically reach peak cell population densities of between 8.0 to 12.0 x10⁶ cells/mL, depending upon the specific clone used. Doubling times during an adaptation period may be higher.

Cryopreservation

HyClone CDM4PERMAb adapted cells can be cryopreserved in a medium consisting of a 1:1 ratio of fresh and conditioned HyClone CDM4PERMAb. To this add DMSO at a final concentration of 7.5 percent.

Ordering Information

Name	Part Number/Unit Size	Description
HyClone CDM4PERMAb™ Without L-Glutamine Liquid	SH30871.01	500 mL Bottle
	SH30871.02	1000 mL Bottle
	SH30871.LS	6 x 1000 mL Bottles
	SH30871.04	5 L BPC: Hanging Pillow
	SH30871.05	10 L BPC: Hanging Pillow
	SH30871.06	20 L BPC: Hanging Pillow
	SH30871.07	50 L BPC: 3D Bag
	SH30871.08	100 L BPC: 3D Bag
	SH30871.09	200 L BPC: 3D Bag
	SH30871.10	500 L BPC: 3D Bag
	SH30871.11	900 L BPC: 3D Bag
HyClone CDM4PERMAb™ Without L-Glutamine Powder	SH30872.01	1 x 5 L
	SH30872.02	1 x 10 L
	SH30872.03	1 x 50 L
	SH30872.04	1 x 100 L
	SH30872.05	1 x 500 L
	SH30872.06	1 x 1000 L
Related Products		
HyClone CDM4Retino™	SH30520	With 4 mM L-glutamine (Liquid)
	SH30519	Without L-glutamine (Powder)
HyClone Cell Boost™ Kit	SH30890	6 x 100 g
		Amino Acids
		Vitamins
		Glucose
		Trace Elements
		Growth Factors
		Lipids
	Cholesterol	
	Cell Boost 1	✓
	Cell Boost 2	✓
	Cell Boost 3	✓
	Cell Boost 4	✓
	Cell Boost 5	✓
	Cell Boost 6	✓

