

Cord Blood for Research Program

Product Specifications for Cord Blood Products for Biomedical Research

Fresh Whole Cord Blood

1. Whole cord blood is collected into a MacoPharma Single Cord Blood collection bag with 21 mL CPD anticoagulant in the base pack.
2. Whole cord blood unit (CBU) volume is >40 mL (including 21 mL of anticoagulant).
3. Whole CBU total nucleated cell (TNC) count will vary between whole CBU but will be $>0.3 \times 10^9$ per unit.
4. A required minimum TNC count can be specified by a researcher.

Note:

- i. *Specifying a minimum TNC count may result in a delay in receiving the product.*
 - ii. *TNC counts for most product available for research will be $<1.3 \times 10^9$ per unit.*
5. Whole CBU collection date and time will be provided.
6. Whole CBU will be stored and shipped at room temperature (15 – 25°C) for receipt within 48 hours of collection.
7. Cord blood is not collected from mothers who have a history of cancer or blood disorder requiring chemotherapy or from mothers who have a haematological genetic disorder.
8. Whole CBU are not tested for transmissible diseases or for sterility.
9. Sex of the baby is available if requested by the researcher. No other information on the mother and baby is available.
10. Whole CBU will be provided to Canadian academic/not-for-profit/government researchers for \$100 per unit (plus shipping) and to Canadian private industry researchers for \$300 per unit (plus shipping).

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Frozen Processed Cord Blood

1. Processed cord blood unit (CBU) is prepared from whole cord blood collected in a Macopharma Single Cord Blood collection bag with 21 mL CPD anticoagulant in the base pack. The whole cord blood is buffy coat enriched by centrifugation with Hydroxyl Ethyl Starch prior to controlled rate freezing. The processed CBU is cryopreserved in 10% DMSO and 1% Dextran 40 within 48 hours of collection.
2. Processed CBU is stored in liquid nitrogen (-196°C) and shipped on dry ice (-78°C) for receipt within 48 hours of pre-approved shipping date.
3. Processed CBU volume is 25 mL.
4. The post-processing total nucleated cell (TNC) count will vary between CBU but will be $>50 \times 10^7$ per unit at the time of cryopreservation.
5. The post-processing CD34+ cell content will vary between CBU but will be $>1.25 \times 10^6$ per unit at the time of cryopreservation.
6. The viability of the cells within the processed CBU at the time of cryopreservation will vary between processed CBU but will be $>85\%$, as determined by flow cytometric analysis.
7. Cord blood is not collected from mothers who have a history of cancer or blood disorder requiring chemotherapy or from mothers who have a haematological genetic disorder.
8. Processed CBU are not tested for transmissible diseases or for sterility.
9. Sex of the baby is available if requested by the researcher. No other information on the mother and baby is available.
10. Processed CBU will be provided to Canadian academic/not-for-profit/government researchers for \$500 per unit (plus shipping) and to Canadian private industry researchers for \$3000 per unit (plus shipping).