**Product Description**

Human Umbilical Cord Blood CD34+ Stem/Progenitor Cells are positively selected from umbilical cord blood mononuclear cells.

Whole umbilical cord blood is needle aspirated from the umbilical cord vein using a cord blood collection bag containing 35 mL of the anticoagulant citrate phosphate double dextrose (CP2D). Mononuclear cells are then enriched from the cord blood using a density gradient centrifugation protocol. CD34+ hematopoietic stem cells (HSCs) are then selected using immunomagnetic anti-CD34 microbeads from the mononuclear cell pool, leaving a highly pure population of CD34+ stem and progenitor cells.

Cells were obtained using Institutional Review Board (IRB) approved consent forms and protocols.

**Cryopreservation**

Cryopreserved products allow for prolonged storage before use. Cell products contain 10% DMSO to minimize cell death during freezing. All cryopreserved products are stored in containers designed and tested for ultra-low temperatures at long time intervals. We normally ship cryopreserved items on dry ice, but can also use a cryoshipper at the customer’s request.

**Sample Collection and Processing**

All samples are collected at nearby partner hospitals or clinics. Samples are then quickly processed in our on-site laboratory to achieve maximum viability and quality. Cryopreserved cells are frozen at -1°C/minute in a -80°C freezer, and then transferred to liquid nitrogen.

Infectious disease testing for HIV, HBV, and HCV is performed on a sample of cord blood by a CLIA-certified lab.

**Format**

Isolated stem/progenitor cells are frozen in StemSpan™ + 10% DMSO. We can also use freezing media as specified by the customer.

**Storage**

Cryopreserved cells should be maintained at -135°C or colder (in liquid nitrogen). The cells are warrantied for twelve months from the date of receipt if stored at -135°C or colder. Storage of cells at -80°C for less than one month should maintain cell viability but is not covered by the warranty.

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**Thawing Instructions for Cell Products**

Refer to our “How to thaw StemExpress primary cells for optimal viability?” under our Frequently Asked Questions at stemexpress.com/faqs/ to access our online Thawing Protocol.

**Warning**

This product contains human tissue or other biological material and MUST be handled at Biosafety Level 2 or higher. All biological products should be treated as potentially infectious or contaminated material, even if infectious disease screening reports are negative. Follow universal precautions and wear appropriate personal protective equipment.

**Product Warranty**

For our product warranty, please review our Terms and Conditions at stemexpress.com/terms-and-conditions/.

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