

## Cryopreserved Product

### Cord Blood CD4+CD45RA+ Naive Helper T Cells

Catalog#	CB445RA005C	5 million cells
	CB445RA010C	10 million cells
	CB445RA015C	15 million cells
	CB445RA020C	20 million cells
	CB445RA025C	25 million cells

## Product Description

Human Umbilical Cord Blood CD4+CD45RA+ Naive Helper T Cells are negatively selected from cord blood mononuclear cells (MNC) in a multi-step process.

First, 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 (MNCs) are then enriched from cord blood using a density gradient centrifugation protocol. Next, cells expressing CD8, CD14, CD16, CD19, CD20, CD36, CD45RO, CD56, CD66b, CD123, TCR $\gamma/\delta$  and CD235a are depleted from the mononuclear cell population using immunomagnetic particles leaving purified, untouched CD4+CD45RA+ naive helper T 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 cells are normally frozen in CryoStor™ CS10 (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 warranted 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.

## 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/](http://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/](http://stemexpress.com/terms-and-conditions/).

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