

## Product Information

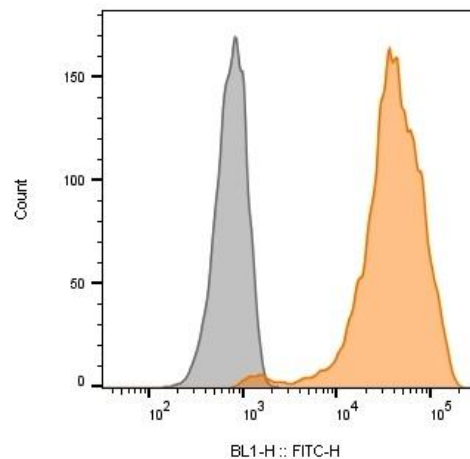
### Human Peripheral Blood CD8+ Cytotoxic T Cells (Positive Selection)

Catalog Number	10HU-024	Cell Number	5.0 x 10 <sup>6</sup> cells/vial 1.0 x 10 <sup>7</sup> cells/vial
Species	<i>Homo sapiens</i>	Storage Temperature	Liquid Nitrogen

## Description

The CD8+ T cells, also known as Cytotoxic T cells (T<sub>c</sub> cells), are a type of T cells that kill cancer cells, cells that are infected (particularly with viruses), or cells that are damaged in other ways. Most cytotoxic T cells express T-cell receptors (TCRs) that can recognize a specific antigen, and a glycoprotein called CD8 which binds to the constant portion of the class I MHC molecule. When exposed to infected/dysfunctional somatic cells, CD8+ T cells release the cytotoxins perforin, granzymes, and granulysin, which triggers the caspase cascade and eventually leads to apoptosis. CD8+ T cells have been implicated in the pathogenesis of hepatitis B virus infection <sup>[1]</sup>, arthritis <sup>[2]</sup> etc.

**iXCells Biotechnologies** offers CD8+ T cells isolated from normal human peripheral blood mononuclear cells (PBMCs) using positive immunomagnetic selection. > 90% of the cells are CD8+ as showed by flow cytometric analysis (Figure 1).



**Figure 1.** Flow cytometric analysis showed that >90% of the cells are CD8+.

## Product Details

<b>Tissue</b>	Normal human peripheral blood
<b>Package Size</b>	5.0x10 <sup>6</sup> cells/vial, 1.0x10 <sup>7</sup> cells/vial
<b>Purity</b>	>90%
<b>Passage Number</b>	P0
<b>Shipped</b>	Cryopreserved
<b>Storage</b>	Liquid nitrogen
<b>Growth Properties</b>	Suspension
<b>Media</b>	Blood Cell Culture Medium (Cat# MD-0007)

## Protocols

### Thawing of Frozen Cells

1. Upon receipt of the frozen CD8+ T cells, it is recommended to thaw the cells and initiate the culture immediately in order to retain the highest cell viability.
2. To thaw the cells, put the vial in 37°C water bath with gentle agitation for 1-2 minutes. Keep the cap out of water to minimize the risk of contamination.
3. Pipette the cells into a 15 mL conical tube with 5 mL fresh Blood Cell Culture Medium (Cat# MD-0007).
4. Centrifuge at 400-450 g for 5 minutes under room temperature.
5. Remove the supernatant and cell is ready for downstream applications.

**Safety Precaution:** *it is highly recommended that protective gloves and clothing should be used when handling frozen vials.*

## References

- [1] Iannacone, Matteo; Sitia, Giovanni; Guidotti, Luca G (2006). "Pathogenetic and antiviral immune responses against hepatitis B virus". *Future Virology* **1** (2): 189–96.
- [2] Subramanian S and Ramalingam K (2005). "Electron microscopic evidence on the participation Cytotoxic T Lymphocytes and Macrophages in Mtb adjuvant induced connective tissue inflammation and arthritogenesis in Rattus norvegicus". *Asian Journal of Microbiology, Biotechnology and Environmental Sciences* **7** (2): 227–233.

## Disclaimers

This product is intended for laboratory research purposes only. It is not intended for use in humans. While iXCells Biotechnologies uses reasonable efforts to include accurate and up-to-date information on this product sheet, we make no warranties or representations as to its accuracy. Citations from scientific literature and patents are provided for informational purposes only. iXCells Biotechnologies does not warrant that such information has been confirmed to be accurate.

This product is sent with the condition that you are responsible for its safe storage, handling, and use. iXCells Biotechnologies is not liable for any damages or injuries arising from receipt and/or use of this product. While reasonable effort is made to insure authenticity and reliability of strains on deposit, iXCells Biotechnologies is not liable for damages arising from the misidentification or misrepresentation of cultures.

© iXCells Biotechnologies 2015. All rights reserved.