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# Product Information

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

| | | | |
|---|---|---|---|
| Catalog Number | 10HU-024 | Cell Number | 5.0 x $10^6$ cells/vial<br>1.0 x $10^7$ cells/vial |
| Species | *Homo sapiens* | Storage Temperature | Liquid Nitrogen |

## Description

The CD8+ T cells, also known as Cytotoxic T cells ($T_C$ 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 [1], arthritis [2] 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).

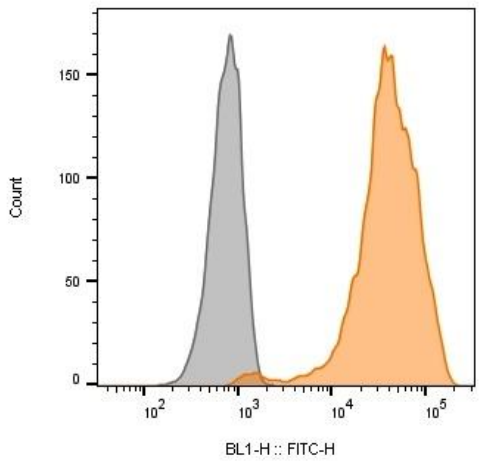


**Figure 1**. Flow cytometric analysis showed that >90% of the cells are CD8+.

## Product Details

| | |
|---|---|
| **Tissue** | Normal human peripheral blood |
| **Package Size** | $5.0x10^6$ cells/vial, $1.0x10^7$ cells/vial |
| **Purity** | >90% |
| **Passage Number** | P0 |
| **Shipped** | Cryopreserved |
| **Storage** | Liquid nitrogen |
| **Growth Properties** | Suspension |
| **Media** | 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

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