Invitra CBSC™
Invitra Cord Blood Stem Cells

Invitra Cord Blood Stem Cells (CBSC) is a minimally manipulated human tissue allograft suspension derived from umbilical cord blood. Invitrx Therapeutics utilizes a proprietary process to preserve the tissue characteristics and properties.

Stem cells were first identified in cord blood over 40 years ago. Since then cord blood has been used routinely for hematopoietic stem cell transplantation. Cord blood contains a mixed population of cells, including hematopoietic stem cells (HSC) and mesenchymal stem cells (MSC). These cells have the capacity to self-renew, release growth factors, and further develop into more specialized cells. These cells also have been associated with contributing to tissue homeostasis, anti-inflammatory responses, and antioxidant effects. This collection of cells can work together to provide a synergistic effect to offset the naturally occurring processes that typically derive from age and environmental factors.

Quality Assurance
Invitra CBSC™ is processed from donated umbilical cords from full term deliveries. All donors are Pre-screened and undergo comprehensive testing that includes:

- Behavioral risk assessment
- Physical assessment
- Donor medical history
- Communicable disease testing

Infectious disease testing is performed at a certified laboratory in accordance with the Clinical Laboratory Improvement Amendments of 1988 (CLIA) and 42 CFR part 493.

Invitrx Therapeutics Inc. 400 Spectrum Center Dr. Suite 1560, Irvine, CA 92618 USA www.Invitrx.com 949.856.3142

CBSC Concentration (pg/ml)

<table>
<thead>
<tr>
<th>Anti-inflammatory</th>
<th>Wound Healing</th>
</tr>
</thead>
<tbody>
<tr>
<td>IL-1ra</td>
<td>168.3</td>
</tr>
<tr>
<td>IL-10</td>
<td>6.9</td>
</tr>
<tr>
<td>HGF</td>
<td>33.1</td>
</tr>
<tr>
<td>TNF RI</td>
<td>403.6</td>
</tr>
<tr>
<td>TGFβ-1</td>
<td>6,602.20</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Homeostatic Cytokines</th>
<th>Growth Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>IL-2</td>
<td>5.4</td>
</tr>
<tr>
<td>IL-7</td>
<td>26.6</td>
</tr>
<tr>
<td>IL-18</td>
<td>109.1</td>
</tr>
<tr>
<td>TIMP-2</td>
<td>1,007.70</td>
</tr>
<tr>
<td>Lipocalin-2</td>
<td>2,053.50</td>
</tr>
</tbody>
</table>

Cell Type | Total Cell
--- | ---
CD90-FITC | 8.60±0.40
CD73-PE | 24.95±2.22
CD105-PE/Cy7 | 12.72±0.45
CD45-FITC | 48.57±1.34
CD34-PE | 20.97±2.38
CD14-PE/Cy7 | 16.74±0.95
CD19-FITC | 8.81±0.33
HLA-DR | 19.62±1.23

78% Cell Viability Post Thaw

Dedication to Excellence
Invitrx Therapeutics, headquartered in Orange County California is a global research-based biotechnology company with over 15 years of product development industry experience. Established in 2003, Invitrx Therapeutics has been a leading pioneer in Regenerative Stem Cell Therapies.
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Invitrx WJ-C™
Structural Wharton’s Jelly Allograft

Invitrx WJ-C™ is a minimally manipulated human tissue allograft suspension derived from the Wharton’s Jelly of the umbilical cord. Invitrx Therapeutics utilizes a proprietary process to preserve the growth and other native components of the Wharton’s Jelly for homologous use.

Primary Characteristics of Structural Wharton’s Jelly

The umbilical cord, often considered the cord of life, is largely composed of Wharton’s jelly. This gelatinous, structural tissue consists of structural proteins and components, such as collagen and hyaluronic acid, which work together to dampen the physical stresses during development. The tissue is also an abundant source of mesenchymal stem cells that are captured during fetal development and a rich source of developmental cytokines, chemokines, and growth factors.

Dedication to Excellence

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Quality Assurance

Invitrx WJ-C™ is processed from donated umbilical cords from full term deliveries. All donors are Pre-screened and undergo comprehensive testing that includes:

- Behavioral risk assessment
- Physical assessment
- Donor medical history
- Communicable disease testing

Infectious disease testing is performed at a certified laboratory in accordance with the Clinical Laboratory Improvement Amendments of 1988 (CLIA) and 42 CFR part 493.
Invitra AT™
Amniotic Tissue Product Description
Invitra AT™ is a biological acellular product derived from human amnion. Amniotic tissue is comprised of an extracellular matrix that forms a natural scaffold. Amniotic tissue has a series of anti-inflammatory, anti-bacterial, anti-viral properties as well as low immunogenicity. This natural scaffold works as a physical barrier that can contain cells to an affected area by maintaining adhesion of cells.

Invitra AF™
Amniotic Fluid Product Description
Invitra AF™ is a biological acellular product derived from the human amnion. Amniotic fluid is rich in growth factors and cytokines including growth factor (EGF), transforming growth factor alpha (TGF alpha), transforming growth factor beta-1, and insulin-like growth factor 1 (IGF1). Importantly, amniotic fluid contains factors related to the innate immune system including a spectrum of antimicrobials effective against bacteria, fungi, protozoa, and viruses.

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Invitra Amniotic Fluid (pg/ml)

<table>
<thead>
<tr>
<th>Anti-Inflammatory</th>
<th>Wound Healing</th>
</tr>
</thead>
<tbody>
<tr>
<td>IL-1α 2.971.10</td>
<td>VEGF 144.4</td>
</tr>
<tr>
<td>IL-10 23</td>
<td>TGF-β1 457.5</td>
</tr>
<tr>
<td>HGF 27,403.80</td>
<td>IL-5 2,928.90</td>
</tr>
<tr>
<td>TNF-α 64,122.60</td>
<td>PDGF-BB 57</td>
</tr>
<tr>
<td>TGF-β1 457.5</td>
<td>HGF 27,403.80</td>
</tr>
<tr>
<td></td>
<td>bFGF 356.6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Homeostatic Cytokines</th>
<th>Growth Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>IL-2 28.6</td>
<td>ANG-1 19,376.50</td>
</tr>
<tr>
<td>IL-7 137.9</td>
<td>bFGF 356.6</td>
</tr>
<tr>
<td>IL-15 0</td>
<td>BMP-2 1,067.30</td>
</tr>
<tr>
<td>TIMP-2 51,298.50</td>
<td>TGF-β1 457.5</td>
</tr>
<tr>
<td>Lhcp2 13,074.80</td>
<td>VEGF 144.4</td>
</tr>
</tbody>
</table>

Quality Assurance
Invitra AT™ & AF™ is processed from donated umbilical cords from full term deliveries. All donors are Pre-screened and undergo comprehensive testing that includes:
- Behavioral risk assessment
- Physical assessment
- Donor medical history
- Communicable disease testing

Infectious disease testing is performed at a certified laboratory in accordance with the Clinical Laboratory Improvement Amendments of 1988 (CLIA) and 42 CFR part 493.
Donor's provide full consent and undergo comprehensive panel testing to determine donor eligibility.

Donated tissue is collected by a licensed professional at time of birth and shipped overnight to our laboratory.

Physician receives allograft at their facility. Product day of appointment. Product use is determined by and administered by a licensed healthcare professional.

During processing a cryopreservative is introduced to the tissue. This allows the tissue to be stored at -80°C.

Physician products are shipped overnight via priority alert shipping on dry ice.

Newly processed allografts are quarantined for a period of two weeks pending in which the tissue is tested for infectious disease and microbial contamination.

Quality Assurance identifies allograft to have passed all required testing including infectious disease and microbial testing.

Invitrx products are shipped overnight via priority alert shipping on dry ice.

Upon receipt of tissue Invitrx lab technicians utilize Invitrx proprietary methods to process tissue.

Quarantine

Birth/Collection

Cryopreservation

Release

Physician

Processing

Mother/Donor

Donor's provide full consent and undergo comprehensive panel testing to determine donor eligibility.