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The NIH CIT Consortium


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Changes to this Specification Document must be proposed to the Chief, Regulatory Affairs, DAIT, NIAID, NIH, and approved by all the original signatories, or their successors, before implementation.
2.0 Requirements:

<table>
<thead>
<tr>
<th>TEST</th>
<th>METHOD</th>
<th>REQUIREMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IDENTITY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recipient Identity</td>
<td>Visual Inspection</td>
<td>Recipient Study ID # and Recipient Medical Record Number on this CoA and on each infusion bag label are identical to that in the Production Batch Record, Section 12.3</td>
</tr>
<tr>
<td>Islets Identity</td>
<td>DTZ Stain &amp; Microscopic Examination</td>
<td>Islets are present in each product bag</td>
</tr>
<tr>
<td><strong>VOLUMES IN BAGS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Suspension Volume</td>
<td>Direct Measurement</td>
<td>200 mL per product bag</td>
</tr>
<tr>
<td></td>
<td></td>
<td>≤ 600 mL total in three product bags</td>
</tr>
<tr>
<td>Settled Tissue Volume</td>
<td>Direct Measurement after 5-minute settling</td>
<td>≤ 7.5 mL per product bag</td>
</tr>
<tr>
<td></td>
<td></td>
<td>≤ 15.0 mL total in three product bags</td>
</tr>
<tr>
<td><strong>POTENCY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Purity Islets GSIR Index (Pre-culture Sample)</td>
<td>Glucose Stimulated Insulin Release by ELISA</td>
<td>For Information Only</td>
</tr>
<tr>
<td>High Purity Islets GSIR Index (Post-culture Sample)</td>
<td>Glucose Stimulated Insulin Release by ELISA</td>
<td>Glucose Stimulated Insulin Release Index &gt; 1</td>
</tr>
<tr>
<td>Islets Quantity</td>
<td>DTZ Stain &amp; Microscopic Examination</td>
<td>First Infusion: ≥ 5.0 × 10^3 IEQ/kg of Recipient’s Body Weight (Total IEQ/infusion) Subsequent Infusions: ≥ 4.0 × 10^3 IEQ/kg of Recipient’s Body Weight (Total IEQ/infusion)</td>
</tr>
<tr>
<td>Viability</td>
<td>FDA/PI Stain &amp; Microscopic Examination</td>
<td>≥ 70% in each product bag</td>
</tr>
<tr>
<td><strong>PURITY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Islets Concentration</td>
<td>DTZ Stain &amp; Microscopic Examination</td>
<td>≥ 20,000 Total IEQ/mL Total Settled Tissue Volume</td>
</tr>
<tr>
<td><strong>SAFETY</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>Visual Inspection</td>
<td>Light yellow to amber liquid with visible aggregates in each product bag</td>
</tr>
<tr>
<td>Endotoxins</td>
<td>LAL</td>
<td>≤ 5.0 EU/kg of Recipient’s Body Weight (Total EU/infusion)</td>
</tr>
<tr>
<td>Gram Stain (Islets Purity Levels Pre-combination Samples)</td>
<td>Gram Stain</td>
<td>No Organisms Seen</td>
</tr>
<tr>
<td>Sterility</td>
<td>Sterility (21CFR610.12 or validated alternate)</td>
<td>No growth in each product bag</td>
</tr>
</tbody>
</table>