Prenatal genetic diagnosis need to extract DNA from low-cellularity samples (usually amniotic fluid and chorionic villus). This task has some difficulties due to poor obtained-yields and long processing times, particularly when the downstream use is sensitive such as human DNA sequencing. Last years some automated systems seemed to solve that problem but the reality is they are beyond the financial reach of most of genetic laboratories.

iGENatal kit has been specifically designed to extract gDNA from low cellularity samples such as amniotic fluid and chorionic villus in a rapid, easy and inexpensive way.

iGENatal kit will allow genetic prenatal laboratories to decrease their diagnostic time and to optimize their resources, specially for those laboratories without automated systems.

DNA extraction technology for prenatal assays

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<table>
<thead>
<tr>
<th>SAMPLE</th>
<th>Amniotic Fluid</th>
<th>Chorionic villus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Starting amount</td>
<td>2 mL</td>
<td>2-3 mg</td>
</tr>
<tr>
<td>[DNA] obtained</td>
<td>80 μg/mL</td>
<td>700 μg/mL</td>
</tr>
<tr>
<td>A260/A280</td>
<td>1.7 – 1.9</td>
<td></td>
</tr>
</tbody>
</table>

Innovations

iGENatal provides better yields to this kind of prenatal samples.

Despite high-throughput and low time assay, the procedure is very simple (like a classic organic-phase extraction).

iGENatal avoids long cultures providing a rapid diagnosis, even sequencing.

Also allows the extraction from cultured AF & CV with similar yields for subsequent genotyping.
High final DNA concentration is the Key advantage of iGENatal Kit.

As shown in graphics above high final DNA concentration results from its laboratory use. iGENatal provides sufficient DNA to avoid culturing in prenatal genetics.

Obtained DNA is peptide- and RNA-free due to method’s cleanliness. [Ratio Absorbance: A260/A280 is 1.7 – 1.9 — A260/A230 is 2 above].

iGENatal guarantees minimal DNA fragmentation and allows using its resulting DNA in sensitive downstream analysis such as RFLP, Southern Blot, microarrays, q-PCR, a-CGH, X-MAP, etc.

Methodology is based in classic organic-phase extraction making the procedure simpler and avoiding the use of silica columns.

[Note: Concentration: in order to get accurate and reliable concentration readings, Fluorometric based methods are recommended.]

→ High final [DNA]
→ Peptide- & RNA- free
→ Minimal DNA fragmentation
→ Short processing time
→ Easy and guided procedures

Find more info at: www.dnaextractiontech.com

Contact details: igen@igenbiotech.com  T: +34 91 510 29 99  F: +34 91 519 13 26