Test Name: **delta-4-Androstenedione**

<table>
<thead>
<tr>
<th>Specimen Required</th>
<th>Plasma/Serum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample Volume (Maximum)</td>
<td>1ml</td>
</tr>
<tr>
<td>Sample Volume (Minimum)</td>
<td>0.5 ml</td>
</tr>
<tr>
<td>Sample Container</td>
<td>Red top tube/green-top (heparin) tube/ lavender-top (EDTA) tube</td>
</tr>
</tbody>
</table>

**Collection**
Separate the serum / plasma within 2 hours of collection. Ensure complete clot formation has occurred and there are no fibrin threads. Do not use lysed serum for testing as it may give very high results. Do not use contaminated / turbid samples for testing. Process the sample on the same day.

**Storage Instructions (Stability)**
- 3 days at 2–8 °C
- >3 days -20°C

**Causes for Rejection**
- Icterus
- Hemolysis
- Lipemia

**Clinical Significance**
The steroid hormone Androstenedione is one of the main androgens, besides Testosterone and Dehydroepiandrosterone. Androstenedione and Testosterone show high diurnal variability. The highest levels are measured in the morning. At the age of puberty serum androstenedione levels rise, after menopause they decline again. High androstenedione levels are measured during pregnancy. In women, high levels of androstenedione (47-100% above normal) are generally found in hirsutism, mostly in combination with other androgens as testosterone and DHEA-S. Androstenedione overproduction is due to ovarian dysfunction or maybe of adrenal origin. High circulating androstenedione levels are found in women with polycystic ovaries and 21-hydroxylase effect. Significant lower androstenedione levels are found in postmenopausal osteoporosis.

**Principle/Method**
ELISA method.