### Patient Data
- **Sample ID:** Unknown-2-191
- **Patient ID:** Injection Number: 191
- **Name:** Run Number: 4
- **Physician:** Rack ID: 0009
- **Sex:** Tube Number: 5
- **DOB:** Report Generated: 08/04/2008 10:49:47
- **Comments:** Operator ID: JE

### Analysis Data
- **Calibrated Retention Peak**

<table>
<thead>
<tr>
<th>Peak Name</th>
<th>Calibrated Area %</th>
<th>Area %</th>
<th>Retention Time (min)</th>
<th>Peak Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unknown</td>
<td>---</td>
<td>0.2</td>
<td>0.110</td>
<td>2257</td>
</tr>
<tr>
<td>A1a</td>
<td>---</td>
<td>1.9</td>
<td>0.192</td>
<td>23921</td>
</tr>
<tr>
<td>A1b</td>
<td>---</td>
<td>0.6</td>
<td>0.271</td>
<td>7069</td>
</tr>
<tr>
<td>F</td>
<td>3.8*</td>
<td>---</td>
<td>0.462</td>
<td>42900</td>
</tr>
<tr>
<td>LA1c</td>
<td>---</td>
<td>1.3</td>
<td>0.783</td>
<td>16027</td>
</tr>
<tr>
<td>A1c</td>
<td>6.0</td>
<td>---</td>
<td>0.978</td>
<td>43858</td>
</tr>
<tr>
<td>P3</td>
<td>---</td>
<td>45.6</td>
<td>1.522</td>
<td>561215</td>
</tr>
<tr>
<td>Ao</td>
<td>---</td>
<td>40.1</td>
<td>1.833</td>
<td>492953</td>
</tr>
<tr>
<td>A2</td>
<td>2.5</td>
<td>---</td>
<td>3.017</td>
<td>30239</td>
</tr>
<tr>
<td>C</td>
<td>---</td>
<td>0.7</td>
<td>4.434</td>
<td>9046</td>
</tr>
</tbody>
</table>

*Values outside of expected ranges 1,229,486*

- **F Concentration =** 3.8% 
- **A1c Concentration =** 6.0% 
- **A2 Concentration =** 2.5%

Analysis comments:
The chromatogram and data in this case report are actual laboratory findings. Bio-Rad Laboratories, Inc. does not validate or confirm the sample data included in this database. All information contained herein is for informational use only and is not meant as a definitive identification of hemoglobin genotype.

Hb Name: Santa Clara
Genotype: Beta 97(F 99) His-->Asn

Hematology:
Hb (g/dL): 16.1
RBC (M/ml): 5.44
MCV (fL): 84
MCH (pg): 29.6
Morphology: anicytosis, microcytosis

Iron Status:
Ferritin: 20
Transferrin saturation: 244

Clinical Findings: polycythemia
Electrophoresis: does not separate

Patient Data
Ethnicity: Central Italy
Gender: Female
Age of patient: 43
Transfused patient: NO

References: Bioquimica et Biophysica (2007)

Dr. Antonio Amato
Associazione Nazionale per la Lotta contro le Microcitemie in Italia (ANMI-Onlus)
Centro Studi Microcitemie di Roma
Rome, Italy

Bio-rad Comments:
Hb Santa Clara beta 97(FG4) His>Asn is an increased oxygen affinity variant. It has been described once in a Mexican child presenting with a moderate erythrocytosis.