**Patient Data**

- Sample ID: Unknown-1-3146
- Patient ID: Injection Number: 3146
- Name: Run Number: 206
- Physician: Rack ID:
- Sex: Tube Number: 10
- DOB: Report Generated: 07/31/2008 14:45:32
- Comments: Operator ID: NES

**Analysis Data**

<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>F</td>
<td>0.5</td>
<td>---</td>
<td>1.10</td>
<td>12808</td>
</tr>
<tr>
<td>Unknown</td>
<td>---</td>
<td>0.7</td>
<td>1.22</td>
<td>17692</td>
</tr>
<tr>
<td>P2</td>
<td>---</td>
<td>4.7</td>
<td>1.31</td>
<td>128498</td>
</tr>
<tr>
<td>P3</td>
<td>---</td>
<td>5.5</td>
<td>1.64</td>
<td>149296</td>
</tr>
<tr>
<td>Ao</td>
<td>---</td>
<td>85.8</td>
<td>2.39</td>
<td>2323247</td>
</tr>
<tr>
<td>A2</td>
<td>2.7</td>
<td>---</td>
<td>3.60</td>
<td>76162</td>
</tr>
</tbody>
</table>

Total Area: 2707702

**Analysis comments:**

- F Concentration = 0.5%
- A2 Concentration = 2.7%

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[Graph showing retention times and areas of peaks]
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: Valletta
Genotype: ACA-->CCA
Hb Class: Beta Variant

Sample Hematology Data
Hb (g/dL): 14.7
RBC (M/mL): 5.2 x 10^6
MCV (fL): 77.6
MCH (pg): 28.4

Iron Status
Ferritin: 198

Major abnormal property: Stability Normal
Laboratory Findings: 21.171% Beta Valletta Globin chain

Electrophoresis: CHROMATOGRAPHY The betaX chain elutes ahead of betaA in reversed phase HPLC

Characterization: STRUCTURE STUDIES Tryptic digestion; separation of peptides by reversed phase HPLC; amino acid analysis DNA ANALYSES An ACA->CCA mutation at codon 87

Occurrence: Found in many Maltese newborn babies and their parents, and also in some Italian newborn babies
Other Information: Ratio of Hb Valletta to Hb A in the newborn is 50:50; the Hb Valletta mutation occurs linked to the Hb F-Malta-1 mutation (i.e. CAT->CCT) at codon 117 of the Ggamma gene (the two mutations are 27-28 kb apart)

Patient general data
Ethnicity: Maltese
Gender: Male
Age: 35
Transfused patient: No


Ref Lab: Director: Professor Alex, E. Felice. Thalassaemia Clinic and Laboratory of Molecular Genetics Department of Physiology & Biochemistry, Biomedical Sciences Building, University of Malta, Msida; And, Section of Molecular Genetics, Division of Pathology, Mater Dei Hospital, MALTA, MSD2080; tel: 356 2340 2774, Fax: 356 2134 3535

Reference Laboratory:
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Thalassaemia Clinic and Laboratory of Molecular Genetics Department of Physiology & Biochemistry
University of Malta and Section of Molecular Genetics Division of Pathology
Mater Dei Hospital, Malta

Bio-rad Comments: Hb Valletta beta 87(F3) Thr>Pro. Elutes as Hb A°. Clinically normal. Abnormal chain could be observed by RP HPLC. This mutation is usually linked in cis to Hb F Malta.