### Chromosome Analysis: Fetal Blood (Percutaneous Umbilical Blood Sampling/PUBS)

<table>
<thead>
<tr>
<th>Test Code:</th>
<th>CP</th>
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<tbody>
<tr>
<td>Turnaround time:</td>
<td>5 days (Preliminary Report: 2-3 days by request)</td>
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<tr>
<td>CPT Codes:</td>
<td>88230 x1, 88262 x1, 88291 x1</td>
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</tbody>
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#### Condition Description

This test will detect abnormalities in chromosome number and large deletions/duplications of chromosome material, as well as balanced chromosome rearrangements.

For most indications for cytogenetic testing (intellectual disability, developmental delays, autism spectrum disorders, multiple congenital anomalies, etc.) a chromosomal microarray has replaced the G-banded karyotype as the first-tier diagnostic test. For more information about the benefits of the microarray, please click [here](#).

#### Indications

Percutaneous Umbilical Blood Sampling (PUBS) is performed to test a pregnancy for a chromosome abnormality or other genetic condition, depending on the patient’s family history and availability of testing. A karyotype or chromosome analysis is performed on the fetal blood sample.

#### Methodology

PHA stimulated cultures are used for G-banded analysis. ISCN nomenclature is followed.

#### Detection

ISCN Nomenclature, minimum band resolution of 550.

#### Specimen Requirements

**Type: Cord Blood**

Specimen Requirements:

- In sodium heparin (green top) tube:
  - Fetal Blood (PUBS): 1-3 ml

Specimen Collection and Shipping: Ship sample at room temperature for receipt at EGL within 24 hours of collection. Do not refrigerate or freeze.

#### Related Tests

- The EmArray Cyto (VA) may detect microdeletions/duplications that are not visible on a PUBS chromosome analysis and is recommended as a first tier diagnostic test.
- When mosaicism is suspected but not detected on a PUBS chromosome analysis, a chromosome analysis for mosaicism (MM) in peripheral blood or a chromosome analysis on skin fibroblasts (CSKNC) may be warranted.
- If there is a known chromosome abnormality in the family, such as a translocation, a targeted, family member chromosome study (FS) may be indicated.