<table>
<thead>
<tr>
<th>Test Name</th>
<th>Turnaround time (abnormal results called out immediately)</th>
<th>Sample requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>EmArray Cyto</td>
<td>5-7 days</td>
<td>3-5 ml blood in sodium heparin and 3-5 ml blood in EDTA tubes.</td>
</tr>
<tr>
<td>EmArray Cyto Prenatal</td>
<td>7-10 days</td>
<td>Direct AF: 20-30 ml of amniotic fluid (discard the first 1-2 ml). Direct CVS*: 15-30 mg of chorionic villi using sterile technique in sterile tube(s) with transport media. If ordering multiple tests, send 30 mg. Cultures (AF or CVS*): 1 T75 or 2 T25 at 70% confluency. *A maternal blood sample (EDTA/purple top tube) is required for maternal cell contamination studies.</td>
</tr>
<tr>
<td>CytoScan SNP Array POC</td>
<td>10-21 days</td>
<td>Chorionic villi*: 15-30 mg of chorionic villi/placental tissue using sterile technique in sterile tube(s) with EGL transport media or other sterile culture media. Tissue Biopsy: 1-2 cm piece of fetal tissue placed in sterile container with EGL transport media or other sterile culture media. Use sterile dissection (no prep) for internal tissues. *A maternal blood sample (EDTA/purple top tube) is required for maternal cell contamination studies.</td>
</tr>
<tr>
<td>CytoScan SNP Array Prenatal</td>
<td>10-14 days</td>
<td>Amniotic fluid: Collect 20-30 ml of amniotic fluid (discard the first 1-2 ml). Place in sterile conical centrifuge tubes. For cultures: 1 T75 or 2 T25 at 70% confluency. Chorionic Villi*: Collect 15-30 mg of chorionic villi using sterile technique. Place in sterile tube(s) with EGL transport media or other sterile culture media. For cultures: 1 T75 or 2 T25 at 70% confluency. Cord Blood: In sodium heparin (green top) AND EDTA (purple top) tube: 1-3 ml of fetal blood (PUBS) *A maternal blood sample (EDTA/purple top tube) is required for maternal cell contamination studies.</td>
</tr>
<tr>
<td>CytoScan SNP Array</td>
<td>10-21 days</td>
<td>3-5 ml blood in sodium heparin and 3-5 ml blood in EDTA tubes.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Test Code</th>
<th>Test Name</th>
<th>CPT** Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>VA</td>
<td>EmArray Cyto</td>
<td>81228 (X1)</td>
</tr>
<tr>
<td>CMPRE</td>
<td>EmArray Cyto Prenatal</td>
<td>81228 (X1), 81265 (X1)</td>
</tr>
<tr>
<td>CMPDC</td>
<td>CytoScan SNP Array POC</td>
<td>81229 (X1)</td>
</tr>
<tr>
<td>CMPFRS</td>
<td>CytoScan SNP Array Prenatal</td>
<td>81229 (X1)</td>
</tr>
<tr>
<td>CMSNP</td>
<td>CytoScan SNP Array</td>
<td>81229 (X1)</td>
</tr>
</tbody>
</table>

**CPT** is a registered trademark of the American Medical Association.

For more information about EGL Genetics:

CALL 470,378,2200  WEB eglinet.com
Whole Genome Chromosome Microarray

About EGL Genetics
EGL Genetics specializes in genetic diagnostic testing, with nearly 50 years of clinical experience and board-certified laboratory directors and genetic counselors reporting out cases. EGL Genetics offers a combined 1000 molecular genetics, biochemical genetics, and cytogenetics tests under one roof and custom testing for all medically relevant genes, for domestic and international clients.

Equally important to improving patient care through quality genetic testing is the contribution EGL Genetics makes back to the scientific and medical communities. EGL Genetics is one of only a few clinical diagnostic laboratories to openly share data via the NCBI freely available public database ClinVar (>35,000 variants on >1700 genes) and is also the only laboratory with a free online database (EmClass), featuring a variant classification search and report request interface, which facilitates rapid interactive curation and reporting of variants.

Whole Genome Chromosome Microarrays
Whole genome chromosome microarrays (CGH) have revolutionized the field of cytogenetics testing. The increased diagnostic yield of CMA over traditional cytogenetics analysis has led to the recommendation that CMA be the first tier test for individuals with developmental delay, intellectual disability, multiple congenital anomalies, and autism spectrum disorders.

EGL Genetics has nearly 50 years of experiences in cytogenetics testing, is a founding member of the International Standards for Cytogenetic Microarrays (ISC) Consortium, and has worked with more than 165 laboratories to standardize array design and interpretation. Supported by a team of cytogenetics and molecular laboratory directors, clinical geneticists, and genetic counselors, EGL Genetics offers two platforms for array analysis: the EmArray Cyto and CytoScan SNP array.

The EmArray Cyto

EmArray Cyto
Detects constitutional copy number aberrations related to the following conditions:
- Autism spectrum disorder
- Developmental delay or intellectual disability
- Multiple congenital anomalies, birth defects, and/or dysmorphic features

EmArray Cyto Prenatal
Detects prenatal copy number aberrations related to the following conditions:
- Abnormal ultrasound findings
- Abnormal serum screening results
- Familial chromosome rearrangement
- Advanced maternal age
- Suspected deletion/duplication syndrome

EmArray Cyto POC
Appropriate for the following situations:
- Fetalm Dne
- Ultrasound abnormalities
- Suspected chromosome imbalance
- Multiple miscarriages
- Further characterisation of chromosome abnormality detected by conventional cytogenetic methods

CytoScan SNP Array

Detects constitutional copy number and copy neutral aberrations related to the following conditions:
- Autism spectrum disorders
- Developmental delay or intellectual disability
- Multiple congenital anomalies, birth defects, and/or dysmorphic features
- Absence of heterozygosity (ADH) due to identity by descent (IBD)

Benefits
- Increased detection and resolution of clinically significant imbalances vs. traditional cytogenetic studies
- Rapid turnaround time (3-7 days)

Platform and Design
- Oxford Gene Technology CytoSure ISCA
- Includes coverage in genes and regions targeted by the ISCA design

Resolution and Coverage
- High resolution copy number analysis
- 600,000 oligonucleotide probes
- 75 kilobase (kb) average probe spacing
- Increased coverage and analysis

Detection
- Detects deletions and duplications greater than 400 kb and smaller imbalances in targeted regions
- Targets >500 regions across the genome, as recommended by the ISCA design

Limitations
- Will not detect:
  - Balanced chromosome rearrangements
  - Small deletions and duplications beyond the resolution of the array
  - Low-level mosaicism
  - Copy neutral aberrations such as uniparental disomy or absence of heterozygosity

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WEB eglogenetics.com