CentoArrayCyto®

CENTOGENE’s microarray-based solution – CentoArrayCyto® – enables detection of known and novel structural aberrations, such as copy number variations (CNVs), chromosomal imbalances, regions exhibiting loss/absence of heterozygosity (LOH), uniparental isodisomy (UPD), and mosaicism. With markers targeted at both polymorphic and non-polymorphic regions spread across the genome, analysis of multiple genes associated with wide-ranging phenotypes can be performed in a single assay. CENTOGENE’s semi-automated preparation platform for CentoArrayCyto® reduces the variability between samples and provides high-quality, consistent data suitable for diagnostic applications.

CentoArrayCyto® — Key Features

› Combines copy number markers with single nucleotide polymorphism (SNP) markers at medium to high density to provide a high resolution with broad coverage
› Detects copy number changes across the genome with a resolution down to 25kb
› Confidently detects presence of mosaicism down to 30%
› Compatible with a wide range of samples, including blood, DNA, fresh and frozen tissues, amniocytes, and bone marrow aspirate
› An impressive turnaround time (TAT) of 15 business days

CentoArrayCyto® is available in HD and 750K format

<table>
<thead>
<tr>
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<th>CentoArrayCyto® HD</th>
<th>CentoArrayCyto® 750K</th>
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<tbody>
<tr>
<td>FEATURES</td>
<td>High-density array to detect structural aberrations, such as CNVs, chromosomal imbalances, LOH, UPD, and mosaicism</td>
<td>Medium-density, cost-effective array to detect structural aberrations, such as CNVs, chromosomal imbalances, LOH, UPD, and mosaicism</td>
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<td>TOTAL MARKERS</td>
<td>2.6 Million</td>
<td>750,000</td>
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<tr>
<td>NON-POLYMORPHIC</td>
<td>1.9 Million</td>
<td>550,000</td>
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<tr>
<td>POLYMORPHIC</td>
<td>750,000</td>
<td>200,000</td>
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<tr>
<td>DETECTION RANGE OF CNVS</td>
<td>&gt;25kb for copy number loss&lt;br/&gt;&gt;200kb for copy number gain</td>
<td>&gt;100kb for copy number loss&lt;br/&gt;&gt;200kb for copy number gain</td>
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When to recommend CentoArrayCyto®

› As a first-step analysis for cases of intellectual disability and/or multiple malformations given that a considerable number of chromosomal rearrangements and CNVs have been implicated in such disorders
› In conjunction with whole exome analysis to complement large CNVs. CentoArrayCyto® can be ordered either as a step-wise analysis with WES or as part of an attractive combined WES package
› As a CNV screening for large NGS panels when sequencing results are negative and single exon resolution analysis is not available
› For deletion/duplication analysis of extremely large genes where gross deletions involving large segments of genes, flanking intergenic regions, or neighboring genes are frequently reported
› To diagnose uniparental isodisomy (UPD) and regions exhibiting loss/absence of heterozygosity (LOH)
› For prenatal testing to help determine a cause of ultrasound-detected abnormalities (in this case, trio analysis of the index and the parents is highly recommended)

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Following GLP and GMP guidelines.

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