

City Hospital
123 City Avenue
Anywhere, ST 12345

LCLS Specimen Number: 123-456-7891-0

Patient Name: **Doe, John**

Date of Birth: 00/00/2006

Gender: M

Patient ID:

Lab Number:

Indications: Autism

Account Number: 12345678

Ordering Physician: Ordering Doctor, MD

Specimen Type: **BLOOD**

Date Collected: 02/01/2012

Date Received: 02/02/2012

CoPath Number:

Client Reference:

Test: **Chromosome Microarray**

Date Reported: **02/11/2012**

Genotyping Targets: 2695000

Array Type: SNP

MICROARRAY RESULT: NORMAL MALE

INTERPRETATION:

arr(1-22)x2,(XY)x1

The whole genome chromosome SNP microarray (REVEAL) analysis was normal. No significant DNA copy number changes or copy neutral regions within the 2.695 million region specific SNP and structural targets were detected under the present reporting criteria indicated below. Archival records can be re-examined on request as new clinically significant genes are identified.

Methodology

SNP microarray analysis was performed using the Affymetrix Cytoscan HD platform which uses over 743,000 SNP probes and 1,953,000 NPCN probes with a median spacing of 0.88 kb. 250ng of total genomic DNA extracted from lymphocytes was digested with NspI and then ligated to NspI adaptors, respectively, and amplified using Titanium Taq with a GeneAmp PCR System 9700. PCR products were purified using AMPure beads and quantified using NanoDrop 8000. Purified DNA was fragmented and biotin labeled and hybridized to the Affymetrix Cytoscan HD GeneChip. Data was analyzed using Chromosome Analysis Suite. The analysis is based on the GRCh37/hg19 assembly.

Positive evaluation criteria include:

- * DNA copy gain/loss within a known clinically significant gene region of 50 Kb or greater.
- * DNA copy number loss of >200 kb or gain >500 kb outside known clinically significant regions with at least one OMIM annotated gene or within a region of clear clinical significance.
- * UPD testing is recommended for patient results demonstrating a long contiguous region of homozygosity in a single chromosome of >20 Mb interstitially or >10 Mb telomerically (15 and 8 Mb, respectively, for imprinted chromosomes).
- * Contiguous homozygosity of >8 Mb within multiple chromosomes suggests common descent. These regions of potential recessive allele risk are designated.
- * A high level of allele homozygosity due to numerous contiguous short runs (associated with a geographically or socially limited gene pool) is reported at the 99th percentile.

Truly balanced chromosome alterations will not be detected by this analysis. The threshold for mosaicism is variable, depending on the size of segment. Empiric studies have detected whole chromosome 22 mosaicism below 10.0%. CNVs cited in the Database of Genomic Variants are not reported.

This test was developed and its performance characteristics determined by Laboratory Corporation of America Holdings (LabCorp). It has not been cleared or approved by the Food and Drug Administration (FDA). The FDA has determined that such clearance or approval is not necessary.

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Board Certified Cytogeneticist

Test Site: LabCorp
1904 Alexander Drive, RTP, NC 27709-0153 (800) 533-0567

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