

Laboratory Services Important Test Announcement

New testing platform for all chromosomal microarray analysis testing options

Test Codes: SNPMA, PSNPMA, POCMA, PMANO, PMAPAR, POCMA5C, AUTMA

Live Date: 7/31/2024

Effective July 31, 2024, the NCH Institute for Genomic Medicine (IGM) Clinical Laboratory will initiate a new testing platform and several reporting changes for all chromosomal microarray analysis testing options (SNP Microarray, Parental SNP Microarray, Prenatal Microarray with Parental Testing, Prenatal Microarray without Parental Testing, Products of Conception Microarray, POC Microarray with 5-Cell Chromosome Analysis, and Autopsy Microarray).

The testing platform and reporting changes are as follows:

- The chromosomal microarray analysis will be performed using the Illumina Infinium CytoSNP-850k BeadChip. The BeadChip contains approximately 850k empirically selected single nucleotide polymorphisms (SNPs) spanning the genome with enriched disease-focused coverage for 3262 dosage-sensitive genes (https://www.illumina.com/). This enhanced SNP coverage has an average spacing of one probe every 5kb throughout the genome and one probe every 1 kb in regions associated with genetic disease.
- All findings will be analyzed and reported using Genome build GRCh38.
- Copy number changes less than 100 kb for deletions and less than 200 kb for gains may not be reported for prenatal (amniotic fluid) and postnatal (peripheral blood, saliva, etc.) specimens and copy number changes less than 1 Mb for deletions and less than 2 Mb for gains may not be reported for products of conception samples.
- The report template will be updated with several changes to enhance clarity.
- We will report certain findings as "carrier status findings."
- All prenatal chromosomal microarrays will be performed on direct amniotic fluid unless there is insufficient fluid volume.
- Expanded SNP reports will no longer be provided for cases with identity by descent.
- There are no changes to test names, test codes, CPT codes, sample requirements, or price.
- Even though the platform is changing, repeating a prior chromosomal microarray performed on an aCGH/SNP platform (typically performed starting in 2010) is not typically recommended.
 However, previous chromosomal microarrays performed on a BAC platform can be repeated due to increased resolution in current technologies (typically performed prior to 2010).
- If testing an individual on this new platform who had a family member tested on our previous platform, there may be differences between their reports relating to probe spacing, genome build, and other factors.