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**Lab Dept:**                    **Anatomic Pathology**

**Test Name:**                **COMPARATIVE GENOMIC HYBRIDIZATION (CGH)  
WITH LIMITED GBAND STUDY**

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***General Information***

**Lab Order Codes:**        CGLBN

**Synonyms:**                Comparative Genomic Hybridization, Microarray; aCGH with Limited G Band

**CPT Codes:**                81228 – Cytogenomic constitutional microarray analysis  
88230 – Tissue culture for non-neoplastic disorders; lymphocyte  
88261 – Chromosome analysis; count 5 cells, 1 karyotype with banding

**Test Includes:**            Microarray with chromosome analysis by G-banding.

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***Logistics***

**Test Indications:**        For detection of small duplications and deletions in patients with normal G-banded karyotypes. For characterization of abnormalities detected by G-banding.

**Lab Testing Sections:**    Anatomic Pathology - Sendouts

**Referred to:**                MHealth Fairview - University of Minnesota Medical Center – Cytogenetics  
FV Test code: **LAB5988**

**Phone Numbers:**        MIN Lab: 612-813-6280  
STP Lab: 651-220-6550

**Test Availability:**        Daily, 24 hours

**Turnaround Time:**        Performed Monday-Friday. Results are reported within 7-21 days.

**Special Instructions:**    Please see Container and Draw Volume

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***Specimen***

**Specimen Type:**            Whole Blood or cord blood

**Container:**                Green (sodium heparin, no gel) **AND** Lavender (EDTA) top tubes  
**Both tubes are required.**

**Note:** A Yellow (ACD) tube can be substituted for the Lavender top tube.

<b>Draw Volume:</b>	6-10 mL (3-5 mL per tube) (Minimum: 2 mL [1 mL per tube]) blood  <b>Note:</b> 1-3 mL per tube minimum for infants and children, with 3 mL strongly preferred
<b>Processed Volume:</b>	Same as Draw Volume
<b>Collection:</b>	Routine Venipuncture. Heelstick or fingerstick is not acceptable.
<b>Special Processing:</b>	Lab Staff: Do Not Centrifuge. Specimen should remain in the original collection container. Store and ship at room temperature. Do not freeze or refrigerate. Must arrive within 24 hours of collection.  Specimens must be received in the Cytogenetics Laboratory Mon-Fri by 5:30 pm; weekends and holidays by 4:30 pm. Specimens received after these cut-offs will be processed the following day.
<b>Patient Preparation:</b>	None
<b>Sample Rejection:</b>	Clotted or frozen sample; mislabeled or unlabeled specimens; incorrect anticoagulant.

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### ***Interpretive***

<b>Reference Range:</b>	Interpretive report
<b>Critical Values:</b>	N/A
<b>Limitations:</b>	Post-natal studies only.
<b>Methodology:</b>	Copy number chromosomal microarray (CMA) with limited chromosome analysis by G-banding. Congenital.
<b>References:</b>	<a href="#">MHealth Fairview Reference Laboratories</a> September 2023
<b>Updates:</b>	9/5/2023: Updated reference lab test codes, added specimen stability notes, corrected methodology, updated blood optimal and minimal volumes, added blood collection by venipuncture is required.