**Lab Dept:** Anatomic Pathology  
**Test Name:** X-LINKED HYDROCEPHALUS (L1CAM) KNOWN MUTATION

### General Information

<table>
<thead>
<tr>
<th>Lab Order Codes:</th>
<th>XLHK (Blood)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synonyms:</td>
<td>L1CAM Gene</td>
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<tr>
<td>CPT Codes:</td>
<td>81403 – Molecular Pathology Level 4</td>
</tr>
<tr>
<td>Test Includes:</td>
<td>X-Linked Hydrocephalus (L1CAM Gene) and related syndrome specific mutation testing in situations such as prenatal diagnosis, carrier testing and pre-symptomatic testing on family members at risk for the mutation. There must be a confirmed mutation analysis on an individual to proceed with this testing.</td>
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</tbody>
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### Logistics

**Test Indications:** Once a mutation is confirmed in an affected individual, prenatal diagnosis, carrier testing, and presymptomatic testing can be performed on family members who are at risk for the mutation. In some cases, particularly those with time constraints such as prenatal diagnosis, mutation confirmation in an affected family member can run concurrently with other samples from the same family.

**Reasons for referral:**
1. Clinical laboratory confirmation of one or more mutations identified in a research lab.
2. Carrier testing in female relatives
3. Genetic counseling and risk assessment
4. Prenatal diagnosis in at-risk pregnancies

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

**Referred to:** GeneDx, Inc.(GDX Test: 9011)

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

**Test Availability:** Daily, 24 hours. Specimens collected Saturday or Sunday will be held for shipment on Monday.

**Turnaround Time:** 2 - 4 weeks
**Special Instructions:** A GeneDx request form must be sent with any patient or specimen to the laboratory.

**Specimen**

**Specimen Type:** Whole blood

**Container:** Lavender top (EDTA) tube

**Draw Volume:** 3 - 5 mL (Minimum: 1 mL) blood

**Processed Volume:** Same as Draw Volume

**Collection:** Routine venipuncture. Mix specimen thoroughly by gentle inversion.

**Special Processing:** Lab Staff: Do Not centrifuge: Ship whole blood in original collection container, with a cool pack in warm temperatures, via overnight or second-day courier so that the sample will arrive at GeneDx Monday through Saturday.

Note: Specimens can be held at refrigerated temperature for up to 7 days.

**Patient Preparation:** None

**Sample Rejection:** Unrefrigerated specimens older than 48 hours; frozen specimens; mislabeled or unlabeled specimens

**Interpretive**

**Reference Range:** No mutations detected

**Critical Values:** N/A

**Limitations:** In the group of patients with a positive family history and more than one typical associated finding for L1CAM-associated disease, the detection rate of mutations is greater than 90%.

Buccal specimens are not accepted for this testing.

**Methodology:** Capillary sequencing

**References:** GeneDx, Inc. March 2018
(301) 519-2100 Fax: (301) 519-2892

**Updates:** 2/11/2013: CPT update
3/7/2018: CPT update