
Lab Dept: **Anatomic Pathology**

Test Name: **WILMS TUMOR, LOSS OF HETEROZYGOSITY (LOH)**

General Information

Lab Order Codes: LOHW

Synonyms: Loss of Heterozygosity (LOH) Wilms Tumor; Wilms Tumor LOH, Nephroblastoma LOH, Wilms Tumor, Wilms LOH, and 16q LOH

CPT Codes: 81479 – Molecular Pathology, Unlisted

Test Includes: Loss of Heterozygosity (LOH) 1p & 16q

Logistics

Test Indications: Children with Wilms tumor have their tumors classified based on stage and histopathology. Many children with Wilms tumor will be enrolled in Children's Oncology Group (COG) protocols. Loss of Heterozygosity (LOH) for 1p36 or LOH for 16q22 may be associated with a poorer prognosis in Wilms tumor patients. LOH testing is currently not available through a COG trial and can be ordered clinically.

Lab Testing Sections: Anatomic Pathology - Sendouts

Referred to: Nationwide Children's Hospital – (NWC Test: WTLOH)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: 24 hours, daily

Turnaround Time: 3 weeks

Special Instructions: Please include a completed request form with the sample to the laboratory. [Nationwide Order Form](#), See the bottom of this page and open the Lab Form Link pdf.

Specimen

Specimen Type: A tumor sample and a normal (germline) sample is required.

Tumor tissue type (one of the following): Please note, at least 40% tumor must be present in the submitted tumor sample.

Banked COG sample (including COG number) (some cases may require approval from the study chair); please call the laboratory to confirm sample availability.

Snap-frozen tumor tissue

Paraffin-embedded tumor tissue

OCT-embedded tumor. Sample submitted under a COG protocol can also be used in most cases (some cases may require approval from the study chair); please call the laboratory to confirm sample availability.

Normal Sample Type (one of the following):

Banked cog sample (include COG number)

Peripheral blood [4mL EDTA whole blood]

Other uninvolved tissue

NOTE: Tumor sample collected during or after treatment (eg, post-chemotherapy) CANNOT be accepted. However, pre-treatment relapse tumor samples will be accepted.

Container:

Sterile container required

Draw Volume:

At least 40% tumor must be present in the submitted tumor sample. A tumor percentage <40% may be reported as unsatisfactory (no results reported). Pathology review by a ChildLab pathologist will be performed on submitted samples to verify tumor percentage.

The normal germline sample

Processed Volume:

Same as Draw Volume

Collection:

Outpatient: freeze immediately after collection. Immediately place on dry ice and transport frozen.

Special Processing:

Lab Staff: Please call 1-614-722-2866 prior to shipping and provide tracking number. Ship for overnight delivery. Saturday deliveries are accepted. Please check "Saturday Delivery" on shipment label.

Send snap-frozen and OCT-embedded specimens on dry ice. Send peripheral blood and paraffin-embedded tissue at room temperature.

Please include Pathology reports, even if preliminary

Patient Preparation:

None

Sample Rejection:

Delayed or improper handling; inadequate tissue; tissue degradation; all specimens must be labeled with at least two patient identifiers; mislabeled or unlabeled specimen

Interpretive

Reference Range: An interpretive report will be provided

Critical Values: N/A

Limitations: A tumor percentage <40% may be reported as unsatisfactory (no results reported).

Methodology: Capillary electrophoresis Microsatellite marker analysis Polymerase chain reaction (PCR)

References: [Nationwide Children's Laboratory](#) April 2018