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**Reporting Title:** MPS (Nine) Panel, WBC**Performing Location:** Rochester**Ordering Guidance:**

To evaluate newborn patients in follow-up to an abnormal newborn screen for MPS I, the recommended tests are IDUAW / Alpha-L-Iduronidase, Leukocytes and MPSBS / Mucopolysaccharidosis, Blood Spot, MPSWB / Mucopolysaccharidosis, Blood), MPSEB / Mucopolysaccharides Quantitative, Serum or MPSQU / Mucopolysaccharides Quantitative, Random, Urine.

To evaluate newborn patients in follow-up to an abnormal newborn screen for MPS II, the recommended tests are I2SB / Iduronate-2-Sulfatase, Blood Spot or I2SWB / Iduronate-2-Sulfatase, Leukocytes and MPSBS / Mucopolysaccharidosis, Blood Spot, MPSWB / Mucopolysaccharidosis, Blood, MPSEB / Mucopolysaccharides Quantitative, Serum or MPSQU / Mucopolysaccharides Quantitative, Random, Urine.

**Shipping Instructions:**

For optimal isolation of leukocytes, it is recommended the specimen arrive refrigerated within 6 days of collection to be stabilized. Collect specimen Monday through Thursday only and not the day before a holiday. Specimen should be collected and packaged as close to shipping time as possible.

**Necessary Information:**

1. Patient's age is required.
2. Reason for testing is required.

**Specimen Requirements:**

Container/Tube:

Preferred: Yellow top (ACD solution B)

Acceptable: Yellow top (ACD solution A) or lavender top (EDTA)

Specimen Volume: 6 mL

Collection Instructions: Send whole blood specimen in original tube. Do not aliquot.

**Specimen Minimum Volume:**

5 mL

**Forms:**

1. New York Clients-Informed consent is required. Document on the request form or electronic order that a copy is on file. The following documents are available:
  - Informed Consent for Genetic Testing (T576)
  - Informed Consent for Genetic Testing-Spanish (T826)
2. If not ordering electronically, complete, print, and send a Biochemical Genetics Test Request (T798) with the specimen.

| Specimen Type   | Temperature              | Time   | Special Container |
|-----------------|--------------------------|--------|-------------------|
| Whole Blood ACD | Refrigerated (preferred) | 6 days |                   |
|                 | Ambient                  | 6 days |                   |

**Ask at Order Entry (AOE) Questions:**

| Test ID | Question ID | Description                                                                                                                  | Type        | Reportable |
|---------|-------------|------------------------------------------------------------------------------------------------------------------------------|-------------|------------|
| MP9W    | BG759       | Reason for Referral: <ul style="list-style-type: none"><li>• Rule out Mucopolysaccharidoses</li><li>• Not Provided</li></ul> | Answer List | Yes        |

**Result Codes:**

| Result ID | Reporting Name                                  | Type         | Unit           | LOINC®  |
|-----------|-------------------------------------------------|--------------|----------------|---------|
| BG759     | Reason for Referral                             | Alphanumeric |                | 42349-1 |
| 618439    | Iduronate-2-sulfatase                           | Numeric      | nmol/h/mg Prot | 24089-5 |
| 618440    | Heparan-N-sulfatase                             | Numeric      | nmol/h/mg Prot | 24086-1 |
| 618441    | N-acetyl-alpha-D-glucosaminidase                | Numeric      | nmol/h/mg Prot | 24092-9 |
| 618442    | Heparan-alpha-glucosaminide N-acetyltransferase | Numeric      | nmol/h/mg Prot | 24044-0 |
| 618443    | N-acetylglucosamine-6-sulfatase                 | Numeric      | nmol/h/mg Prot | 24098-6 |
| 618444    | N-acetylgalactosamine-6-sulfatase               | Numeric      | nmol/h/mg Prot | 24096-0 |
| 618445    | Beta-galactosidase                              | Numeric      | nmol/h/mg Prot | 24061-4 |
| 618446    | Arylsulfatase B                                 | Numeric      | nmol/h/mg Prot | 24094-5 |
| 618447    | Beta-glucuronidase                              | Numeric      | nmol/h/mg Prot | 24065-5 |
| 618448    | Interpretation                                  | Alphanumeric |                | 59462-2 |
| 618438    | Reviewed By                                     | Alphanumeric |                | 18771-6 |

LOINC and CPT codes are provided by the performing laboratory.

**Supplemental Report:**

No

**CPT Code Information:**

82657

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**Reference Values:**

Iduronate-2-sulfatase: >2.20 nmol/hour/mg protein

Heparan-N-sulfatase: >0.13 nmol/hour/mg protein

N-acetyl-alpha-D-glucosaminidase: >0.09 nmol/hour/mg protein

Heparan-alpha-glucosaminide N-acetyltransferase: >0.24 nmol/hou/mg protein

N-acetylglucosamine-6-sulfatase: >0.03 nmol/hour/mg protein

N-acetylgalactosamine-6-sulfatase: >1.60 nmol/hour/mg protein

Beta-galactosidase: >0.28 nmol/hour/mg protein

Arylsulfatase B: >0.34 nmol/hour/mg protein

Beta-glucuronidase: >3.50 nmol/hour/mg protein

An interpretive report will be provided.