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**Reporting Title:** RET Full Gene Analysis**Performing Location:** Mayo Clinic Laboratories - Rochester Main Campus**Ordering Guidance:**

For a comprehensive hereditary cancer panel that includes the *RET* gene, consider 1 of the following:

-ENDCP / Hereditary Endocrine Cancer Panel, Varies

-HPGLP / Hereditary Paraganglioma/Pheochromocytoma Panel, Varies

-THYRP / Hereditary Thyroid Cancer Panel, Varies

Testing for the *RET* gene as part of a customized panel is available. For more information see CGPH / Custom Gene Panel, Hereditary, Next-Generation Sequencing, Varies.

Targeted testing for familial variants (also called site-specific or known mutations testing) is available for this gene. For more information see FMTT / Familial Variant, Targeted Testing, Varies. To obtain more information about this testing option, call 800-533-1710.

If the reason for testing indicates the *MECP2* gene or Rett Syndrome, order MCP2Z / *MECP2* Gene, Full Gene Analysis, Varies. If this test is ordered in this situation, it will be canceled and MCP2Z ordered and performed as the appropriate test.

**Specimen Requirements:**

**Patient Preparation:** A previous bone marrow transplant from an allogenic donor will interfere with testing. For instructions for testing patients who have received a bone marrow transplant, call 800-533-1710.

**Specimen Type:** Whole blood

**Container/Tube:**

**Preferred:** Lavender top (EDTA) or yellow top (ACD)

**Acceptable:** Green top (Sodium heparin)

**Specimen Volume:** 3 mL

**Collection Instructions:**

1. Invert several times to mix blood.
2. Send whole blood specimen in original tube. **Do not aliquot.**

**Specimen Stability Information:** Ambient 4 days/Refrigerated 4 days/Frozen 4 days

**Additional Information:**

1. Specimens are preferred to be received within 4 days of collection. Extraction will be attempted for samples received after 4 days and DNA yield will be evaluated to determine if testing may proceed.
2. To ensure minimum volume and concentration of DNA is met, the preferred volume of blood must be submitted. Testing may be canceled if DNA requirements are inadequate.

**Specimen Type:** Saliva

**Patient Preparation:** Patient should not eat, drink, smoke, or chew gum 30 minutes prior to collection.

**Supplies:**

DNA Saliva Kit High Yield (T1007)

Saliva Swab Collection Kit (T786)

**Container/Tube:**

**Preferred:** High-yield DNA saliva kit

**Acceptable:** Saliva swab

**Specimen Volume:** 1 Tube if using T1007 or 2 swabs if using T786

**Collection Instructions:** Collect and send specimen per kit instructions.

**Specimen Stability Information:** Ambient (preferred) 30 days/Refrigerated 30 days

**Additional Information:** Saliva specimens are acceptable but not recommended. Due to lower quantity/quality of DNA yielded from saliva, some aspects of the test may not perform as well as DNA extracted from a whole blood sample. When applicable, specific gene regions that were unable to be interrogated will be noted in the report. Alternatively, additional specimen may be required to complete testing.

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. [Molecular Genetics: Inherited Cancer Syndromes Patient Information](#) (T519)
3. If not ordering electronically, complete, print, and send a [Oncology Test Request](#) (T729) with the specimen.

Specimen Type	Temperature	Time	Special Container
Varies	Varies		

Result Codes:

Result ID	Reporting Name	Type	Unit	LOINC®
614839	Test Description	Alphanumeric		62364-5
614840	Specimen	Alphanumeric		31208-2
614841	Source	Alphanumeric		31208-2
614842	Result Summary	Alphanumeric		50397-9
614843	Result	Alphanumeric		82939-0
614844	Interpretation	Alphanumeric		69047-9
614845	Resources	Alphanumeric		99622-3
614846	Additional Information	Alphanumeric		48767-8
614847	Method	Alphanumeric		85069-3
614848	Genes Analyzed	Alphanumeric		48018-6
614849	Disclaimer	Alphanumeric		62364-5
614850	Released By	Alphanumeric		18771-6

LOINC® and CPT codes are provided by the performing laboratory.

Supplemental Report:

Supplemental

CPT Code Information:

# Test Definition: RETZZ

Multiple Endocrine Neoplasia Type 2  
Syndrome, RET, Full Gene Analysis, Varies

81406

**Reference Values:**

An interpretive report will be provided.