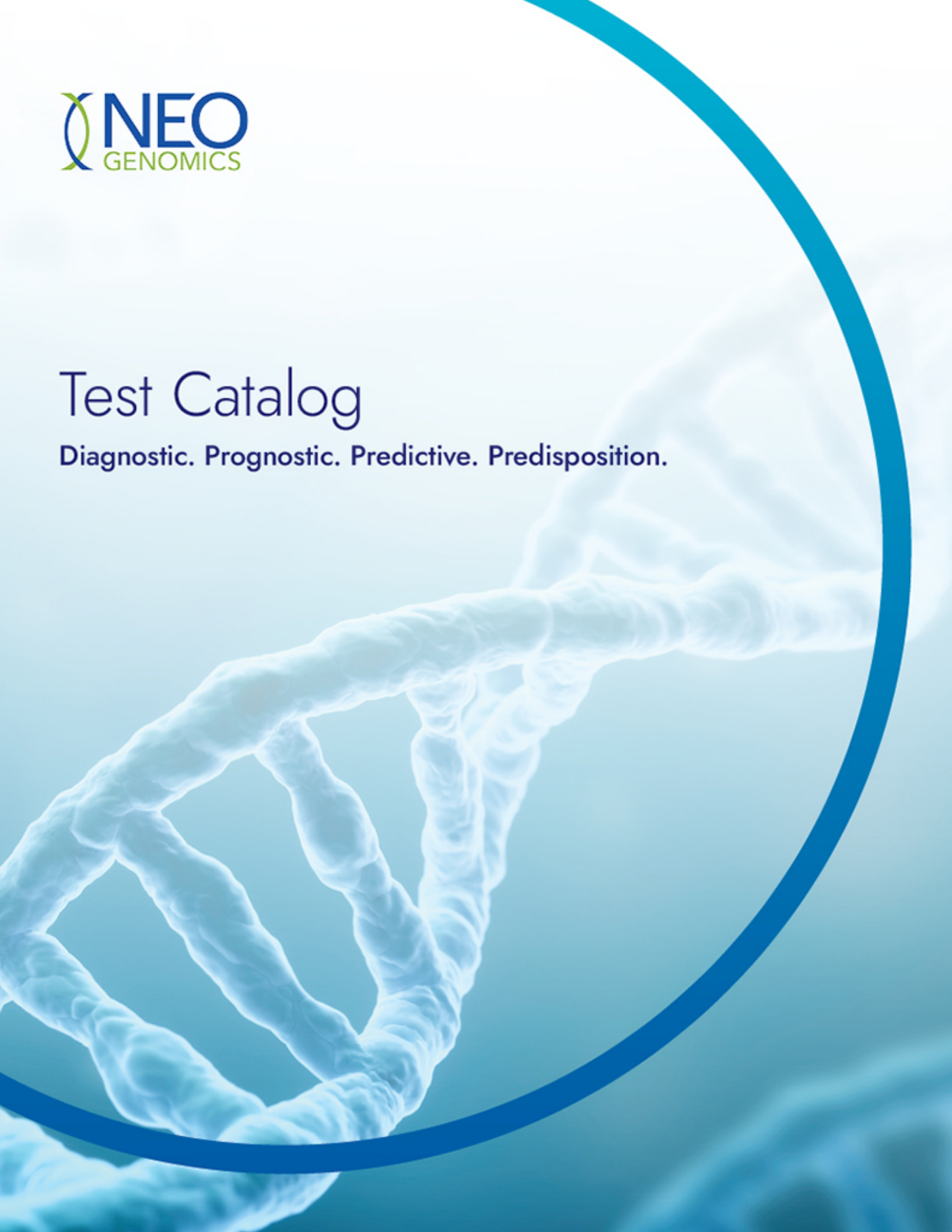
NEO GENOMICS

Test Catalog

Diagnostic. Prognostic. Predictive. Predisposition.



RET FISH

Methodology
FISH

Test Description
Probes: RET (10q11.2)
Disease(s): Lung cancer, thyroid cancer

Clinical Significance
RET gene rearrangements that result in growth-promoting chimeric or fusion proteins are found in 1-2% of adenocarcinoma-containing non-small cell lung cancer (NSCLC) and 20-40% of sporadic papillary thyroid carcinoma (PTC). In lung cancer, the most common rearrangement partner is KIF5B, followed by PTC1 and PTC3 rearrangements which are the most common in PTC. RET rearrangements in NSCLC are generally mutually exclusive of mutations in EGFR, KRAS, ALK, and ROS1. Patients tend to be younger (<60) and lack smoking history. Early clinical studies in NSCLC show response to multi-kinase inhibitors. By identifying PTC, RET rearrangements are one of several genetic markers useful for classifying indeterminate thyroid FNA cytology results. Sequence-variant mutations in the RET gene associated with MEN2 syndrome or sporadic medullary thyroid carcinoma (MTC) will not be detected by FISH; next-gen sequencing for the RET gene may be considered instead.

Specimen Requirements
- **Bone marrow aspirate:** N/A
- **Peripheral blood:** N/A
- **Fresh, unfixed tissue:** N/A
- **Fluids:** N/A
- **Paraffin block:** Send paraffin block. Also send circled H&E slide for tech-only (required).
- **Cut slides:** H&E slide (required) plus 4 unstained slides cut at 4-5 microns. Circle H&E slide for tech-only.

Storage & Transportation
Use cold pack for transport. Make sure cold pack is not in direct contact with specimen.

CPT Code(s)*
88377x1 manual or 88374x1 automated.

New York Approved
Yes

Level of Service
Technical, Global

Turnaround Time
3-5 days

*The CPT codes provided with our test descriptions are based on AMA guidelines and are for informational purposes only. Correct CPT coding is the sole responsibility of the billing party.

Please direct any questions regarding coding to the payor being billed.

NeoGenomics Laboratories is a specialized oncology reference laboratory providing the latest technologies, testing partnership opportunities, and interactive education to the oncology and pathology communities. We offer the complete spectrum of diagnostic services in molecular testing, FISH, cytogenetics, flow cytometry, and immunohistochemistry through our nation-wide network of CAP-accredited, CLIA-certified laboratories.

Committed to research as the means to improve patient care, we provide Pharma Services for pharmaceutical companies, in vitro diagnostic manufacturers, and academic scientist-clinicians. We promote joint publications with our client physicians. NeoGenomics welcomes your inquiries for collaborations. Please contact us for more information.

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9490 NeoGenomics Way
Fort Myers, FL 33912
Phone: 239.768.0600/ Fax: 239.690.4237
neogenomics.com

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