



# Test Catalog

Diagnostic. Prognostic. Predictive. Predisposition.



## KRAS Mutation Analysis by PCR

### Alternative Name

KRAS Gene Sequencing, KRAS (Kirsten rat sarcoma virus)

### Methodology

Molecular

### Test Description

The KRAS Mutation Analysis Assay is a real-time PCR-based assay designed to detect somatic mutations in exons 2, 3 and 4 of the KRAS gene. This assay is designed to detect the following KRAS mutations: Exon 2 - G12C, G12A/D/R/V/S and G13D; Exon 3 - A59E/G/T and Q61H/L/R; Exon 4 - K117N/R/E and A146T/P/V. Testing is available separately or in combination with BRAF, HRAS and NRAS in the [RAS/RAF Panel](#).

### Clinical Significance

KRAS mutations are frequently found in many human cancers, particularly non-small cell lung cancer (NSCLC), colorectal cancer (CRC), and pancreatic cancer. KRAS mutations occur most commonly in hotspots at codons 12 and 13 of exon 2. KRAS G12C mutation in NSCLC patients may predict response to targeted RAS GTPase inhibitors including sotorasib and adagrasib. CRC patients with any known KRAS mutation (exons 2, 3, and 4) are associated with resistance to anti-EGFR targeted antibody therapies such as cetuximab or panitumumab with the exception as part of a regimen targeting a KRAS G12C mutation.

### Specimen Requirements

- **FFPE solid tumor tissue:** Paraffin block is preferred. Alternatively, send 1 H&E slide plus 5-10 unstained slides cut at 5 or more microns. Please use positively-charged slides and 10% NBF fixative. Do not use zinc fixatives.

### Storage & Transportation

Use cold pack for transport, making sure cold pack is not in direct contact with specimen.

### CPT Code(s)\*

81275, 81276

### Medicare MoIDX CPT Code(s)\*

81479

### New York Approved

Yes

### Level of Service

Global

### Turnaround Time

7 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.

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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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