



Molecular Testing in Lung Cancer for Determination of Patient Eligibility for Targeted Therapies



testing at ARUP Laboratories



www.aruplab.com

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keywords: LUNG CANCER

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[www.aruplab.com/
topics/lung-cancer](http://www.aruplab.com/topics/lung-cancer)

ARUP's lung cancer testing menu is ideally suited to address gene mutations and translocations identified as actionable therapy targets. Faster turnaround times enable clinicians and patients to make **timely, individualized treatment plans.**



Gene Mutations											Gene Fusions/ Translocations			Protein Expression		
AKT1	ALK	BRAF	EGFR	ERBB2	ERBB4	KRAS	NRAS	PIK3CA	Add'l Genes	ALK	RET	ROS1	ALK	PD-L1	ROS1	

Next-Generation Sequencing Panels																
2007991	Solid Tumor Mutation Panel by NGS	●	●	●	●	●	●	●	●	●	35					Detects mutations in 44 genes, covering >2,400 variants Gene and variant list: www.aruplab.com/human-genome-coordinates
Bundled Assays —Concurrent testing is performed on multiple single gene assays to reduce turnaround time and required tissue.																
2008894	Lung Cancer Limited Panel			●									●		●	EGFR mutation detection by pyrosequencing; ALK and ROS1 by IHC; tests are performed concurrently.
2008895	Lung Cancer Limited Panel with KRAS			●			●						●		●	EGFR and KRAS mutation detection by pyrosequencing; ALK and ROS1 by IHC; tests are performed concurrently.
Point Mutation —Digital droplet PCR																
2012868	EGFR T790M Mutation Detection in Circulating Cell-Free DNA			●												Plasma or CSF sample type Guides clinical treatment decisions about acquired resistance to early generation TKIs and decision to switch to EGFR T790M-specific TKIs
Single Gene Assays —Mutation detection by pyrosequencing																
2002498	BRAF Codon 600 Mutation Detection		●													Covers codon 600 (exon 15)
2002440	EGFR Mutation Detection			●												Covers exons 18–21
0040248	KRAS Mutation Detection					●										Covers codons 12 and 13 (exon 2) and codon 61 (exon 3)
2003123	NRAS Mutation Detection						●									Covers codons 12 and 13 (exon 2) and codon 61 (exon 3)
Immunohistochemistry (IHC)																
2007324	ALK (D5F3) with Interpretation												●			More cost effective than FISH testing
2011431	ALK (D5F3) with Reflex to FISH										●		●			If IHC is positive or equivocal, the sample is reflexed to FISH for confirmation.
2013284	PD-L1 22C3 IHC for NSCLC with Interpretation, pembrolizumab (KEYTRUDA)													●		
2013684	PD-L1 28-8 pharmDx by Immunohistochemistry with Interpretation, nivolumab (OPDIVO)													●		
2008414	ROS1 with Interpretation with Reflex to FISH												●		●	If IHC is equivocal, the sample is reflexed to FISH.
Fluorescent In Situ Hybridization (FISH)																
2006102	ALK Gene Rearrangements by FISH										●					
2012654	RET Gene Rearrangements by FISH											●				
2008418	ROS1 by FISH												●			