

— BIOMARKER TESTING —

What is it?

Biomarker testing (also called molecular testing) looks for biological changes that may be associated with your cancer.

How does it work?

In most cases, this involves testing a piece of tissue from the cancer (a biopsy) for changes in the genes or proteins in cancer cells. However, in some cases you may have a liquid biopsy, which is a test done on blood, urine or sputum.

Biomarker testing can be done using the first biopsy from when cancer was diagnosed or with a new biopsy from a cancer that has grown or come back.

Personalization

You and your treatment team may make different decisions about your treatment based on the gene and protein changes in your cancer. This is what is known as precision medicine (formerly referred to as personalized medicine) – forming a treatment plan specifically for you.

**THESE TESTS
ARE IMPORTANT
BECAUSE EVERY
PERSON'S CANCER
IS DIFFERENT.**

Lung**MATCH**

1-800-298-2436 | lungmatch.org

COMMON BIOMARKER TESTING IN LUNG CANCER

It is helpful to know the name of the gene or protein that has changed in your lung cancer to match your tumor to a treatment. Genes are commonly called by the gene symbol which stands for a longer name.

<u>SYMBOL</u>	<u>NAME</u>
PD-L1 (CD274)	Programmed death-ligand 1 (also known as cluster of differentiation 274)
CTLA-4	Cytotoxic T-Lymphocyte Associated protein 4
TMB	Tumor Mutational Burden
EGFR	epidermal growth factor receptor
ALK	anaplastic lymphoma receptor tyrosine kinase
ROS1	ROS proto-oncogene 1, receptor tyrosine kinase
BRAF	B-Raf proto-oncogene, serine/threonine kinase
RET	ret proto-oncogene
MET	MET proto-oncogene, receptor tyrosine kinase
NTRK1,2,3	neurotrophic receptor tyrosine kinase
VEGFR	vascular endothelial growth factor receptor
KRAS	Kirsten rat sarcoma viral oncogene homolog
ERBB2 (HER2)	erb-b2 receptor tyrosine kinase 2 (also known as human epidermal growth factor receptor 2)
PARP	Poly ADP-ribose polymerase
STK11	Serine/threonine kinase 11
NRG1	Neuregulin 1
FGFR1	fibroblast growth factor receptor 1
PIK3CA	phosphatidylinositol-4,5-bisphosphate 3-kinase catalytic subunit alpha
DLL3	delta like ligand 3

— TREATMENT OPTIONS —

Many of the changes that have been identified in lung cancer occur in a small percentage of the cancers. There are only approved treatments for some of those changes. If there is not an approved treatment for the changes in your cancer, there may be a **CLINICAL TRIAL** that would be a good match for you.

Talk with your treatment team or call our Treatment and Trials Specialists (1-800-298-2436) to find out how to get tested or discuss the results of your tests and possible treatment options available for you.

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