

What does it mean to have PD-L1 positive (PD-L1+) Lung Cancer?

WHAT IS A BIOMARKER?

Biomarkers help identify what specific subtype of cancer you have. Cancer biomarkers are often referred to by a 3- or 4-letter abbreviation, such as ALK or PD-L1. Biomarkers are sometimes called molecular markers, cancer markers, or tumor markers. If you have advanced non-small cell lung cancer (NSCLC), ask to have **comprehensive biomarker testing** (which should include PD-L1 testing) before you start treatment.

Your tumor tested positive for the PD-L1 biomarker. It is important to understand what this means and how it may affect lung cancer treatment.

WHAT IS PD-L1?

PD-L1 (programmed cell death ligand 1) is a protein that plays a role in the body's immune system. It can bind to another protein called PD-1. When this happens, the two proteins block the immune system from killing cancer cells. Doctors have figured out how to prevent the two proteins from binding and help the immune system do its job.

WHAT DO THE RESULTS OF A PD-L1 TEST MEAN?

A test for PD-L1 will show the level of PD-L1 found in tumor cells. The result will be a percentage. This number reflects the percent of cells in the tumor with PD-L1. Doctors refer to this as PD-L1 expression. A tumor with a higher PD-L1 level may be more likely to respond to PD-L1 treatment. A high level also may be called "PD-L1 positive."

RESULTS FOR PD-L1 TESTS COME BACK FROM THE LAB QUICKLY

PD-L1 tests are easier to run than other biomarker tests. Patients who test ALK+ or EGFR+ should get that targeted therapy before they get immunotherapy. Because of this, it is important for you and your oncology care team to wait until all your biomarker results return before starting treatment. This may delay your treatment for a few weeks. But it will ensure that you get the best treatment for you in the right order.

HOW DO DOCTORS TREAT PD-L1+ LUNG



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CANCERS?

Doctors decide whether to treat lung cancers with PD-L1 drugs based on the level of PD-L1 in the tumor. They also may look at what other treatment options are available. Drugs that treat PD-L1-positive cancers are immunotherapy drugs. Immunotherapy works by allowing your own immune system to fight cancer better. The immunotherapy drugs for cancers that are high in PD-L1 are called checkpoint inhibitors. They block PD1 and PD-L1 from binding. This allows the immune system to kill more cancer cells.

The U.S. Food and Drug Administration has approved the following drugs for cancers that are PD-L1+. Some are used even when PD-L1 levels are very low. They are given through a vein. All may be used to treat advanced non-small cell lung cancer. Tecentriq, Opdivo, and Keytruda are also used against advanced small cell lung cancer. These drugs may be combined with other treatments. If the first drug you try does not work or stops working, ask your doctor about trying another. Clinical trials continue to test more and better ways to use these drugs to treat lung cancer.

- ✓ Atezolizumab (Tecentriq®)
- ✓ Durvalumab (Imfinzi®)
- ✓ Nivolumab (Opdivo®)
- ✓ Pembrolizumab (Keytruda®)

The following are common side effects of these drugs. It is very important to report new side effects and changes in side effects to your health care team right away. In rare cases, they may lead to more serious conditions.

- Constipation
- Cough
- Diarrhea
- Fatigue
- Flu-like symptoms (chills, fever, headache, nausea)
- Loss of appetite
- Low blood pressure
- Pain or soreness
- Rashes, redness, or itching

Rare but serious side effects may include:

- Hepatitis
- Colitis
- Swelling in the lungs
- Severe infections
- Severe skin problems
- Problems in the kidneys, hormone glands, or other organs

Resources

- ✓ Cancer Support Community's [Frankly Speaking About Lung Cancer](http://www.CancerSupportCommunity.org/Lung) program: www.CancerSupportCommunity.org/Lung
- ✓ [Frankly Speaking About Cancer: Targeted Therapy and Biomarker Testing for Lung Cancer](#) booklet
- ✓ [Frankly Speaking About Cancer: Lung Cancer](#) book
- ✓ [Immunotherapy and Lung Cancer: www.CancerSupportCommunity.org/IO Lung](http://www.CancerSupportCommunity.org/IO Lung)

Lung Cancer Information, Survivorship, and Support

Cancer Support Community • 888-793-9355 • www.CancerSupportCommunity.org

American Cancer Society • 800-227-2345 • www.cancer.org

American Lung Association • 800-586-4872 • www.lung.org

CancerCare • 800-813-4673 • www.cancercare.org

Cancer.net • 888-651-3038 • www.cancer.net

GO₂ Foundation for Lung Cancer • 800-298-2436 • www.go2foundation.org

Lung Cancer Research Foundation • 844-835-4325 • www.lcrf.org

LUNGevity Foundation • 321-407-6100 • www.LUNGevity.org

National Cancer Institute (NCI) • 800-422-6237 • www.cancer.gov

NCI Clinical Trial Information • 800-422-6237 • www.cancer.gov/ClinicalTrials

Patient Advocate Foundation • 800-532-5274 • www.patientadvocate.org

Cancer Support Community Resources

Cancer Support Helpline[®] — Have questions, concerns or looking for resources? Call CSC's toll-free Cancer Support Helpline (888-793-9355), available in 200 languages Mon - Fri 9am - 9pm ET.

Open to Options[®] — Need help making a cancer treatment decision? Our trained specialists can help you create a list of questions to share with your doctor. Make an appointment by calling 888-793-9355 or by contacting your local CSC or Gilda's Club.

Frankly Speaking About Cancer[®] — Trusted information for cancer patients and their loved ones is available through publications, online, and in-person programs at

www.CancerSupportCommunity.org/FranklySpeakingAboutCancer.

Services at Local CSCs and Gilda's Clubs — With the help of 170 locations, CSC and Gilda's Club affiliates provide services free of charge to people touched by cancer. Attend support groups, educational sessions, wellness programs, and more at a location near you.

www.CancerSupportCommunity.org/FindLocation

Cancer Experience Registry[®] — Help others by sharing your cancer patient or cancer caregiver experience via survey at www.CancerExperienceRegistry.org.

MyLifeLine — CSC's private, online community allows patients and caregivers to easily connect with friends and family to receive social, emotional, and practical support throughout the cancer journey and beyond. Sign up at www.MyLifeLine.org.

Grassroots Network — Make sure your voice is heard by federal and state policy makers on issues affecting cancer patients and survivors by joining our Network at www.CancerSupportCommunity.org/become-advocate.

LUNG BIOMARKER DIGITAL TOOL PROGRAM PARTNERS:



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The Cancer Support Community and its partners provide this information as a service. This publication is not intended to take the place of medical care or the advice of your doctor. We strongly suggest consulting your doctor or other health care professionals to answer questions and learn more.

This booklet is available to download and print at www.CancerSupportCommunity.org/immunotherapy. For print copies of this more resources about coping with cancer, visit Orders.CancerSupportCommunity.org.

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