



## What is BRAF positive (BRAF+) 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 BRAF. 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 will include BRAF testing) before you start treatment.

If you have non-small cell lung cancer and your tumor tests positive for the BRAF biomarker, you have BRAF+ (BRAF positive) lung cancer. This fact sheet explains what this means and how it may affect lung cancer treatment.

### WHAT IS BRAF?

BRAF is a gene that makes the B-Raf protein. BRAF plays a role in cell growth and cell signaling. Cell signaling is the way cells talk with each other to ensure healthy body functioning. BRAF genes in cancer cells can mutate and stop working properly. A mutation is a change in a cell's genes that may lead to cancer growth. When this

happens, BRAF sends signals that make cancer grow. Doctors do not know what causes BRAF to mutate. It is seen in some melanomas and cancers of the lung, thyroid, ovaries, and colon.

### WHO HAS BRAF+ LUNG CANCER?

A change in the BRAF gene is more often found in people who have a history of smoking. Around 2 to 4 percent of people with non-small cell lung cancer test positive for BRAF. They have a type of non-small cell lung cancer called adenocarcinoma.

### HOW DO DOCTORS TREAT BRAF+ LUNG CANCERS?

A positive test for the BRAF biomarker means that you are eligible for targeted therapy. Targeted therapy drugs keep cancer from growing and spreading. These drugs may have fewer side effects than chemotherapy. The U.S. Food and Drug Administration has approved two drugs to treat BRAF+ advanced NSCLC. **Dabrafenib (Tafinlar®)** and **trametinib (Mekinist®)** work together to stop BRAF-driven cancer growth. They come in pill form and are used at the same time. Tafinlar is taken twice

daily. Mekinist is taken once daily. Other drugs may be available through clinical trials.

Common side effects of these drugs include:

- Changes to the skin (thickening, rash, warts, dryness)
- Diarrhea
- Fatigue
- Fever
- Nausea and vomiting
- Sensitivity to the sun
- Swelling

In rare cases, these drugs may cause allergic reactions, increases in blood sugar, or problems for the heart, lung, kidneys, eyes, or liver.

For information on coping with side effects, visit [www.CancerSupportCommunity.org/SideEffects](http://www.CancerSupportCommunity.org/SideEffects).

### **ALK+ LUNG CANCER AND BIOMARKER TESTING INFORMATION**

**Cancer Support Community** · *Frankly Speaking About Lung Cancer program* · [www.CancerSupportCommunity.org/Lung](http://www.CancerSupportCommunity.org/Lung)

**Cancer Support Community** · *Frankly Speaking About Cancer Targeted Therapy and Biomarker Testing for Lung Cancer booklet* · download or order from [orders.CancerSupportCommunity.org](http://orders.CancerSupportCommunity.org)

**Cancer Support Community** · *Frankly Speaking About Cancer Lung Cancer book* · download or order from [orders.CancerSupportCommunity.org](http://orders.CancerSupportCommunity.org)

**ALK Positive** · [www.ALKpositive.org](http://www.ALKpositive.org)

**ALK Fusion** · [www.ALKfusion.org](http://www.ALKfusion.org)

**GO2 Foundation for Lung Cancer** · 800-298-2436 · [www.go2foundation.org/lungmatch](http://www.go2foundation.org/lungmatch)

**LUNGeivity Foundation** · 844-360-5864 · [www.LUNGeivity.org/biomarkertesting](http://www.LUNGeivity.org/biomarkertesting)



## LUNG CANCER RESOURCES

American Cancer Society · 800-227-2345 · [www.Cancer.org](http://www.Cancer.org)

American Lung Association · 800-586-4872 · [www.lung.org](http://www.lung.org)

CancerCare · 800-813-4673 · [www.CancerCare.org](http://www.CancerCare.org)

Cancer.net · 888-651-3038 · [www.cancer.net](http://www.cancer.net)

GO2 Foundation for Lung Cancer · 800-298-2436 · [www.go2foundation.org](http://www.go2foundation.org)

Lung Cancer Research Foundation · 844-835-4325 · [www.lcrf.org](http://www.lcrf.org)

LUNgevity Foundation · 321-407-6100 · [www.LUNgevity.org](http://www.LUNgevity.org)

National Cancer Institute (NCI) · 800-422-6237 · [www.cancer.gov](http://www.cancer.gov)

NCI Clinical Trial Information · 800-422-6237 · [www.cancer.gov/ClinicalTrials](http://www.cancer.gov/ClinicalTrials)

Patient Advocate Foundation · 800-532-5274 · [www.patientadvocate.org](http://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-8pm ET and Sat 9am-5pm ET.

**Open to Options®** — Preparing for your next appointment? 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.

**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](http://www.CancerSupportCommunity.org/FindLocation).

**Cancer Experience Registry®** — Help others by sharing your cancer patient or cancer caregiver experience via survey at [www.CancerExperienceRegistry.org](http://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](http://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](http://www.CancerSupportCommunity.org/become-advocate).

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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 publication is available to download and print yourself at [www.CancerSupportCommunity.org/lung](http://www.CancerSupportCommunity.org/lung). For print copies of this publication or other information about coping with cancer, visit [Orders.CancerSupportCommunity.org](http://Orders.CancerSupportCommunity.org)

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Lung Biomarker Digital Tool  
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