

FGFR2b: An Emerging Protein Biomarker in Advanced G/GEJ Cancer



FGFR2b, fibroblast growth factor receptor 2, isoform IIIb; G/GEJ, gastric or gastroesophageal junction.

USA-552-80081

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Objectives

1

Highlight the unmet needs and complex heterogeneity in advanced G/GEJ cancer

2

Describe the biomarker and precision medicine landscape in advanced G/GEJ cancer

3

Understand FGFR2b protein overexpression in advanced G/GEJ cancer and distinguish protein overexpression from gene amplification

4

Review biomarker testing considerations for advanced G/GEJ cancer

Advanced G/GEJ Cancer: Unmet Need and Complex Heterogeneity

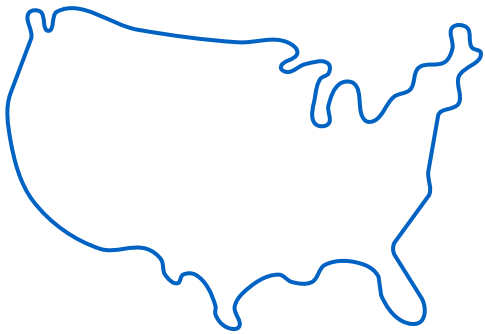
G/GEJ, gastric or gastroesophageal junction.



Most Patients With Gastric Cancer Are Diagnosed at an Advanced Stage, With Low Rates of Survival^{1,2}



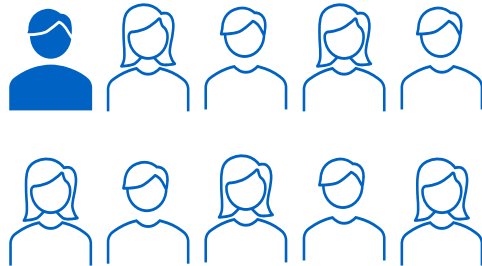
US Incidence*



- Estimated **30,300** new cases¹
- Percent of all new cancer cases: **1.5%**¹



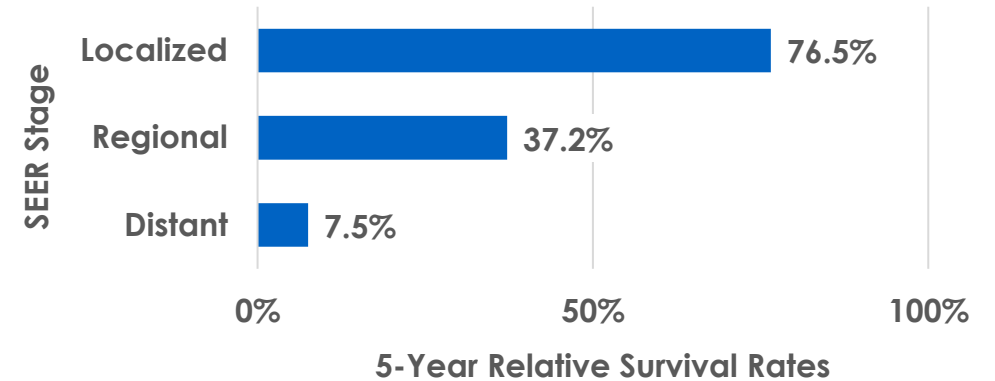
US Deaths*



- Estimated **10,780** deaths¹
- Percent of all cancer deaths: **1.7%**¹



5-Year Relative Survival Rates by Stage at Diagnosis From 2015 to 2021 (US)¹



- Advanced disease[†] at the time of diagnosis: **60%**^{1,‡}
- 5-year overall relative survival rate: **37.9%**¹
- 5-year metastatic disease relative survival rate: **7.5%**¹

*Estimated in 2025.¹ [†]Gastric cancers tend to be detected at an advanced stage.² [‡]This includes patients with regional disease or whose cancer has spread to regional lymph nodes, and those with metastatic disease.¹

SEER, Surveillance, Epidemiology, and End Results; US, United States.

1. National Cancer Institute. <https://seer.cancer.gov/statfacts/html/stomach.html>. Accessed April 28, 2025. 2. Sekiguchi M, et al. *Digestion*. 2022;103:22-28.

Gastric Cancer Is a Complex and Heterogeneous Disease That Can Be Attributed to Environmental and Genetic Risk Factors

Classification Parameters



Anatomical location¹

- Noncardia
- Cardia



Histology¹

- Intestinal
- Diffuse



Etiology¹

- Sporadic
- Hereditary



TCGA classification^{2,3}

- EBV positive
- MSI
- Genomically stable tumors
- Chromosomal instability



ACRG classification²

- MSI
- MSS with wild type TP53
- MSS with mutant TP53
- MSS and EMT-like

Risk Factors¹



Helicobacter pylori

- Accounts for ~ 90% of cases



Sex and age

- Higher risk in males and older individuals



Obesity

- Obesity is linked to increased risk of gastric cancer



Diet and alcohol

- High-salt diet, salt-preserved foods, and ≥ 3 alcoholic drinks per day can increase the risk of gastric cancer



Genetics

- Inherited genetic mutations* and family history are associated with a higher risk of gastric cancer

An understanding of the complex etiology of gastric cancer may enhance the identification of potential biomarkers⁴

*Including mutations in *CDH1*, *CTNNA1*, *MLH1*, *MSH2*, *APC*, *MSH6*, *PMS2*, *TP53*, *STK11*, *SMAD4*, *BMPR1A*, and *EPCAM*.⁵

ACRG, Asian Cancer Research Group; APC, adenomatous polyposis coli; BMPR1A, bone morphogenetic protein receptor type 1A; CDH1, cadherin 1; CTNNA1, catenin alpha 1; EBV, Epstein-Barr virus; EMT, epithelial-mesenchymal transition; EPCAM, epithelial cell adhesion molecule; MLH1, MutL homolog 1; MSH, MutS homolog; MSI, microsatellite instability; MSS, microsatellite stable; PMS2, post-meiotic segregation 2; SMAD4, SMAD family member 4; STK11, serine/threonine kinase 11; TCGA, The Cancer Genome Atlas; TP53, tumor protein p53.

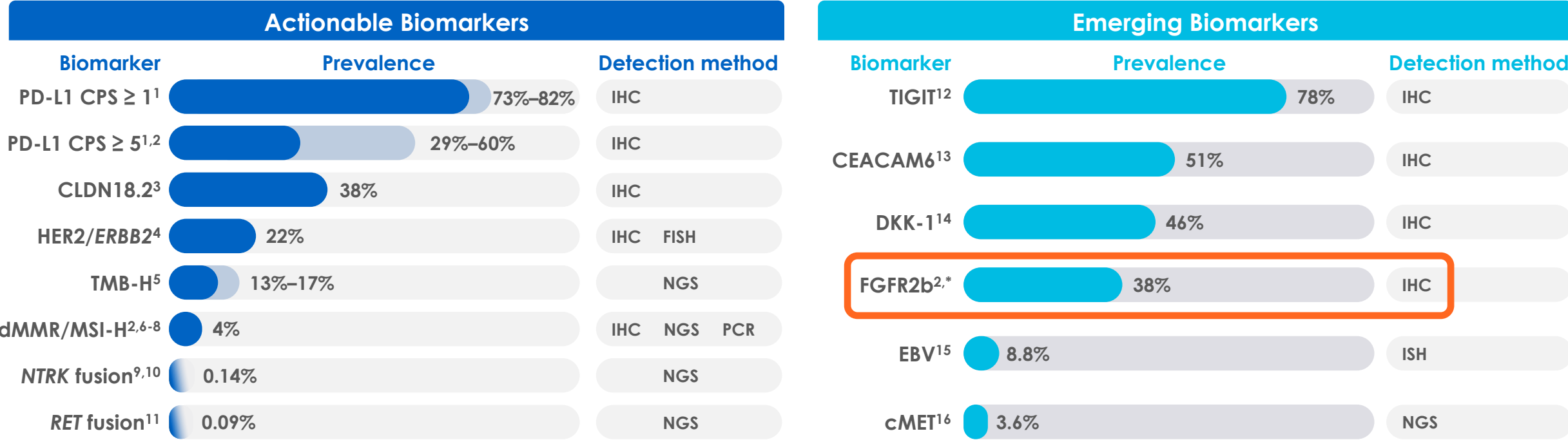
1. Thrift AP, et al. *Nat Rev Clin Oncol*. 2023;20:338-349. 2. Wu D, et al. *Front Genet*. 2022;12:793494. 3. The Cancer Genome Atlas Research Network. *Nature*. 2014;513:202-209. 4. De Mello RA, et al. *Am Soc Clin Oncol Educ Book*. 2018;38:249-261. 5. Seppälä TT, et al. *BJS Open*. 2023;7:zrad023.

Biomarker and Precision Medicine Landscape in Advanced G/GEJ Cancer

G/GEJ, gastric or gastroesophageal junction.



Actionable and Emerging Biomarkers in Advanced G/GEJ Cancer: Prevalence and Detection



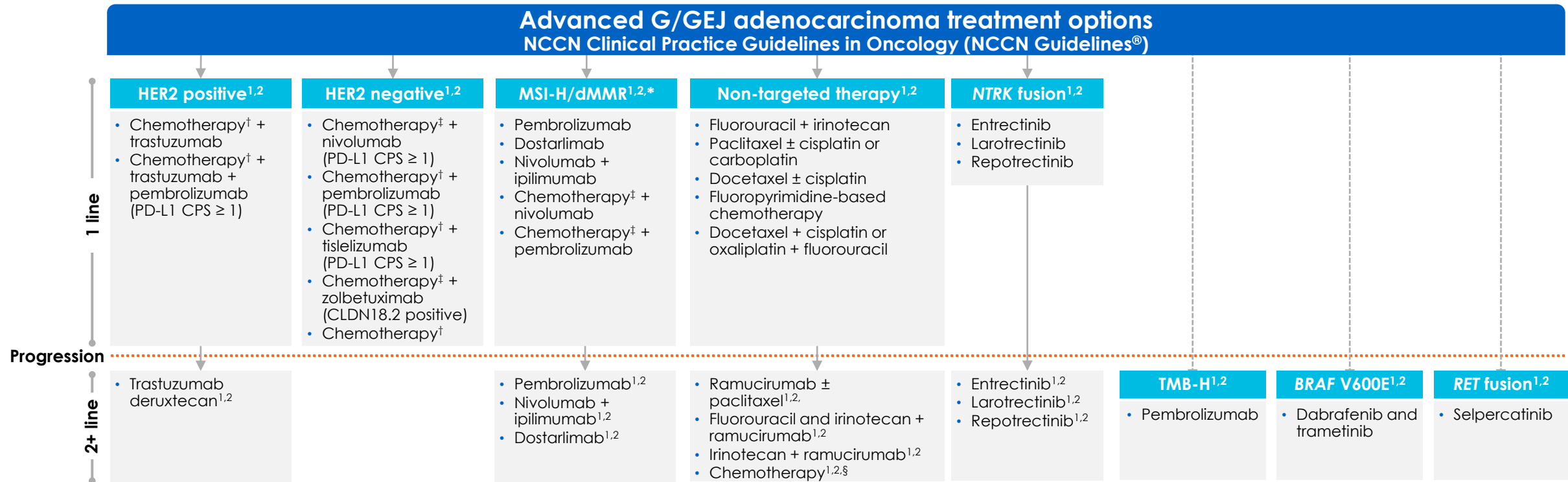
Advancements in tumor profiling have led to the identification of biomarkers that may have potential clinical utility for patients with advanced G/GEJ cancer¹⁷

*FGFR2b protein overexpression is defined as any percentage of tumor cells with moderate (2+) to strong (3+) membranous staining, as detected by IHC.² CEACAM6, carcinoembryonic antigen-related cell adhesion molecule 6; CI, confidence interval; CLDN18.2, claudin-18 isoform 2; cMET, cellular mesenchymal-epithelial transition factor; CPS, combined positive score; DKK-1, Dickkopf-related protein 1; dMMR, deficient mismatch repair; EBV, Epstein-Barr virus; ERBB2, erythroblastic leukemia viral oncogene homologue B2; FGFR2b, fibroblast growth factor receptor 2, isoform IIb; G/GEJ, gastric/gastroesophageal junction; HER2, human epidermal growth factor receptor 2; IHC, immunohistochemistry; ISH, in situ hybridization; ITIM, immunoreceptor tyrosine-based inhibitory motif; MSI-H, microsatellite instability-high; NGS, next-generation sequencing; NTRK, neurotrophic tyrosine kinase receptor; PCR, polymerase chain reaction; PD-L1, programmed cell death ligand 1; RET, rearranged during transfection; TIGIT, T-cell immunoreceptor with immunoglobulin and ITIM domains; TMB-H, tumor mutational burden-high.

1. Schoemig-Markiefka B, et al. *Gastric Cancer*. 2021;24:1115-1122. 2. Rha SY, et al. *JCO Precis Oncol*. 2025;9:e2400710. 3. Shitara K, et al. *Lancet*. 2023;401:1655-1668. 4. Van Cutsem E, et al. *Gastric Cancer*. 2015;18:476-484. 5. Sato Y, et al. *J Clin Med*. 2023;12:4646. 6. Fuchs CS, et al. *JAMA Oncol*. 2018;4:e180013. Erratum in: *JAMA Oncol*. 2019;5:579. 7. Vos EL, et al. *J Clin Oncol*. 2021;39:244. 8. Quaaas A, et al. *Eur J Cancer*. 2022;173:95-104. 9. O'Haire S, et al. *Sci Rep*. 2023;13:4116. 10. Kim M, et al. *J Gastric Cancer*. 2022;22:273-305. 11. Shi M, et al. *Cancer Sci*. 2022;113:308-318. 12. Tang W, et al. *Oncoimmunology*. 2019;8:e1593807. 13. Ru GQ, et al. *Oncotarget*. 2017;8:83673-83683. 14. Hong SA, et al. *BMC Cancer*. 2018;18:506. 15. Tavakoli A, et al. *BMC Cancer*. 2020;20:493. 16. Byeon S, et al. *Biomedicines*. 2023;11:3172. 17. Skórzewska M, et al. *Cancers (Basel)*. 2023;15:5490.



Precision-Based Treatment Landscape for Advanced G/GEJ Cancer



For patients with gastric cancer, identifying biomarkers is crucial for informing patient management³

Treatment options based upon NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Gastric Cancer V.2.2025 and Esophageal and Esophagogastric Junction Cancers V.3.2025. To view the most recent and complete version of the guidelines, go online to NCCN.org.

*Independent of PD-L1 status.^{1,2} †Fluoropyrimidine- + platinum-based chemotherapy.^{1,2} ‡Fluoropyrimidine + oxaliplatin chemotherapy.^{1,2} §Docetaxel, paclitaxel, irinotecan, fluorouracil + irinotecan, irinotecan + cisplatin, docetaxel + irinotecan, or trifluridine + tipiracil for third-line or subsequent therapy for EGJ adenocarcinoma and gastric cancer.^{1,2}

BRAF, proto-oncogene B-Raf; CLDN18.2, claudin-18 isoform 2; CPS, combined positive score; dMMR, deficient mismatch repair; EGJ, esophagogastric junction; G/GEJ, gastric/gastroesophageal junction; HER2, human epidermal growth factor receptor 2; MSI-H, microsatellite instability-high; NCCN, National Comprehensive Cancer Network; NTRK, neurotrophic tyrosine receptor kinase; PD-L1, programmed cell death ligand 1; RET, rearranged during transfection; TMB-H, tumor mutational burden-high.

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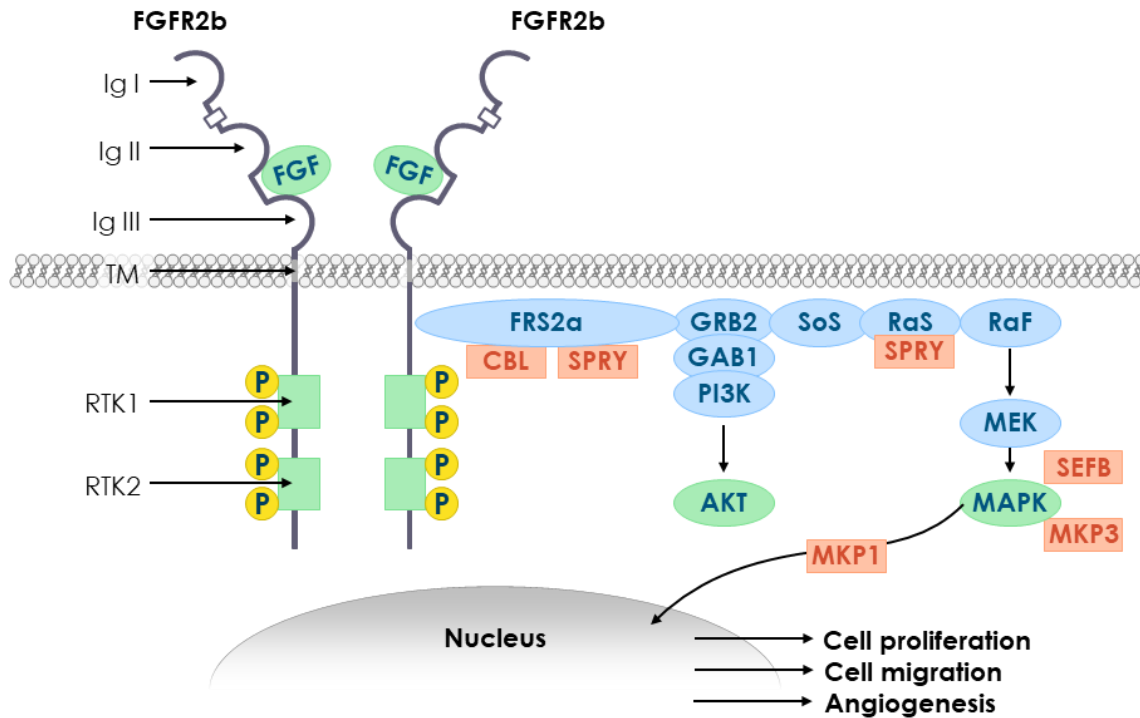
FGFR2b Protein Overexpression in Advanced G/GEJ Cancer

FGFR2b, fibroblast growth factor receptor 2, isoform IIIb; G/GEJ, gastric/gastroesophageal junction.



The FGFR2b Protein Is an RTK Involved in Numerous Cellular Functions¹⁻⁴

FGFR2b Drives Multiple Cellular Functions^{1,4}

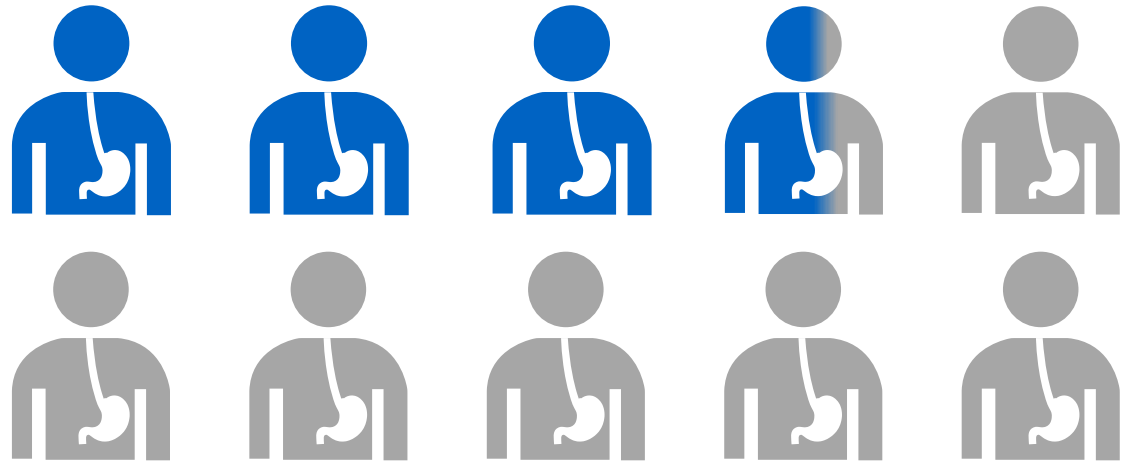


- **FGFR2b** is a **protein isoform** of the *FGFR2* gene (FGFR2 IIIb)²
- It is primarily expressed in **epithelial cells**²
 - Due to its unique extracellular domain, only a specific subset of FGF ligands will bind to the receptor – FGF ligands 7, 10, and 22 specifically bind to FGFR2b^{2,5}
- Ligand binding and homodimerization activate downstream signaling pathways, including the PI3K-AKT and RAS-MAPK pathways, which function in cell proliferation, survival, migration, differentiation, and metabolism^{1,3,6}
- Aberrant activation can drive the transformation and proliferation of tumor cells and angiogenesis⁷

AKT, protein kinase B; CBL, Casitas B lineage lymphoma; FGF, fibroblast growth factor; FGFR2, fibroblast growth factor 2; FGFR2b, fibroblast growth factor receptor 2b; FRS2a, FGFR substrate 2a; GAB1, GRB2-associated-binding protein 1; GRB2, growth factor receptor-bound 2; Ig, immunoglobulin; MAPK, mitogen-activated protein kinase; MEK, mitogen-activated protein kinase; MKP1, mitogen-activated protein kinase phosphatase 1; MKP3, mitogen-activated protein kinase phosphatase 3; P, phosphate; PI3K, phosphoinositide 3-kinase; RaF, proto-oncogene, serine/threonine kinase; RaS, rat sarcoma; RTK, receptor tyrosine kinase; SAM, S-adenosyl methionine; SEFB, SAM-dependent methyltransferase; SoS, son of sevenless; SPRY, sprouty protein; TM, transmembrane.

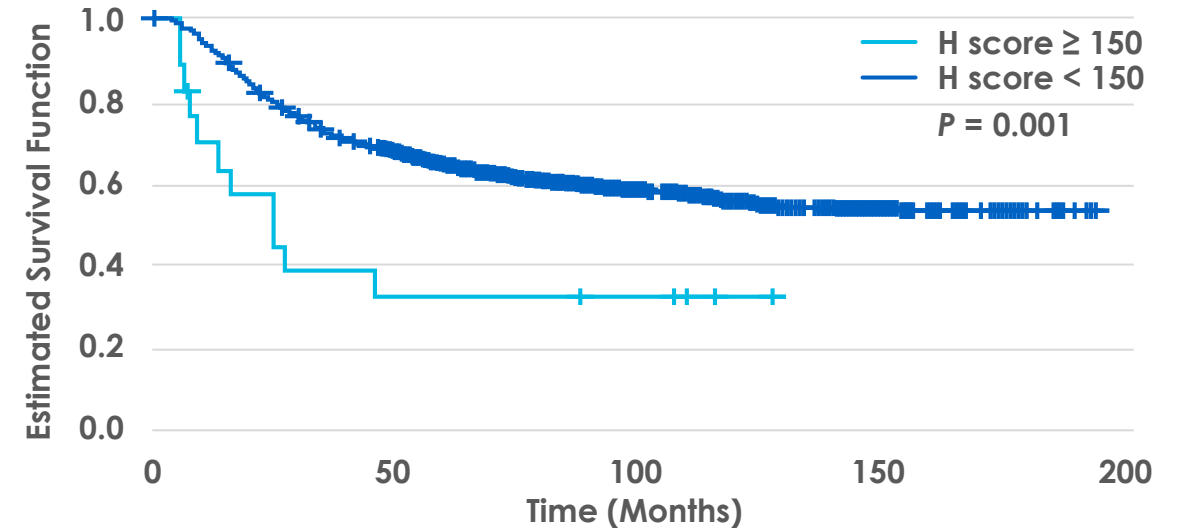
1. Turner N, et al. *Nat Rev Cancer*. 2010;10:116-120. 2. Ishiwata T. *Front Biosci (Landmark Ed)*. 2018;23:626-639. 3. Del Piccolo N, et al. *J Biol Chem*. 2017;292:1288-1301. 4. Khosravi F, et al. *Front Cell Dev Biol*. 2021;9:672935. 5. Powers J, et al. Presented at: 10th Annual Meeting of the American Association for Cancer Research (AACR); April 16-20, 2016; New Orleans, LA. Poster 1636. 6. De Mello RA, et al. *Am Soc Clin Oncol Educ Book*. 2018;38:249-261. 7. Xiang H, et al. *MAbs*. 2021;13:1981202.

FGFR2b Protein Is Overexpressed in Some Patients With Advanced G/GEJ Cancer and May Be Associated With Poor Prognosis



FGFR2b is an emerging protein biomarker overexpressed in ~ 38%* of advanced gastric/GEJ cancer patients^{1,*}

Overall Survival Analysis Using FGFR2b H-score ≥ 150 and < 150 ²



- Patients with FGFR2b-overexpressed gastric cancer and an H-score[†] ≥ 150 showed significantly shorter overall survival ($P = 0.001$)²

The prevalence of FGFR2b protein overexpression in advanced G/GEJ cancer (~ 38%*) and its potential association with poor prognosis make FGFR2b a target that warrants further investigation¹

*FGFR2b protein overexpression is defined as any percentage of tumor cells with moderate (2+) to strong (3+) membranous staining, as detected by IHC.¹

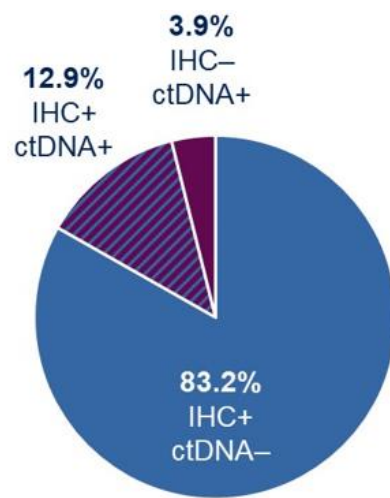
FGFR2b, fibroblast growth factor receptor 2b; G/GEJ, gastric or gastroesophageal junction; IHC, immunohistochemistry.

1. Rha SY, et al. *JCO Precis Oncol*. 2025;9:e2400710. 2. Ahn S, et al. *Mod Pathol*. 2016;29:1095-1103.

FGFR2b Protein Overexpression and *FGFR2* Gene Amplification Are Distinct¹⁻⁵

FGFR2 Gene Amplification/FGFR2b Protein Overexpression Status of Patients With G/GEJ Cancer^{1,*}

96.1% of Patients Had FGFR2b Protein Overexpression

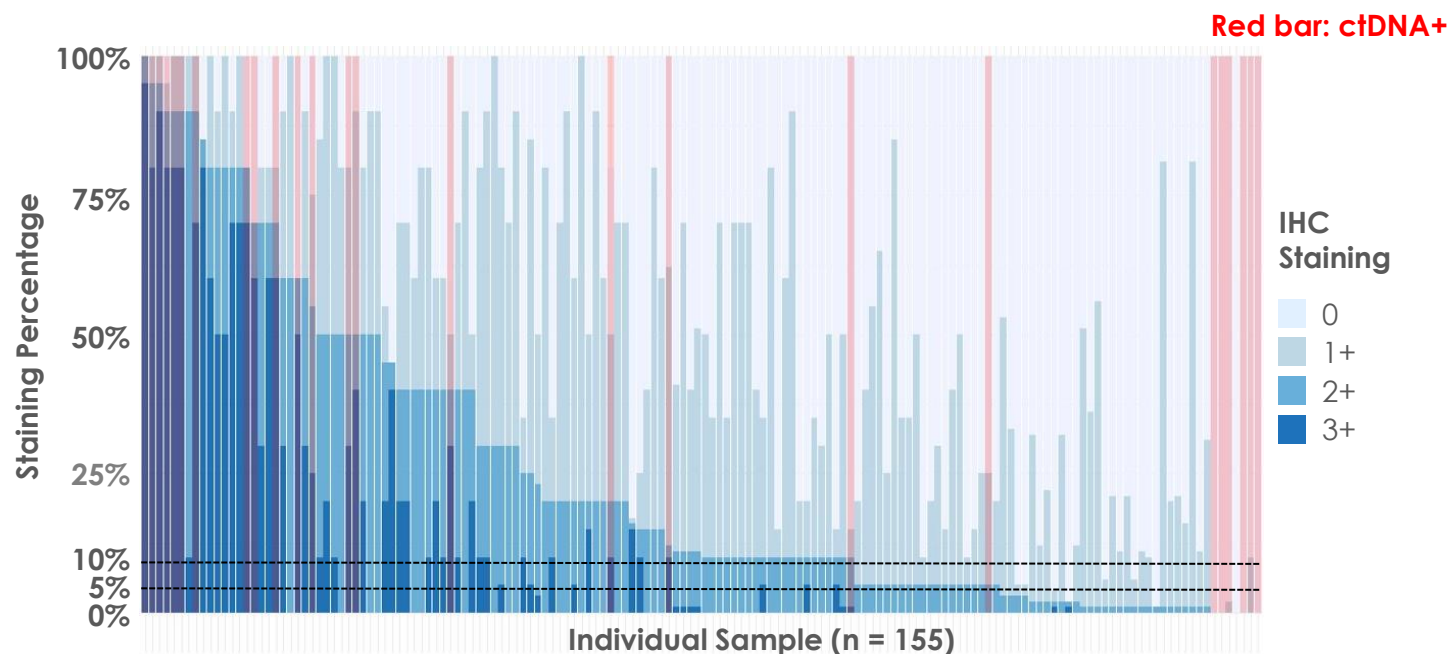


Legend:

IHC+ = FGFR2b protein overexpression (any 2+/3+)

ctDNA+ = *FGFR2* gene amplification

FGFR2b Protein Overexpression (detected by IHC) can be Independent of *FGFR2* Gene Amplification (detected using NGS)^{1,5,6}



IHC is the appropriate method to detect FGFR2b protein overexpression in the membrane of tumor cells⁷

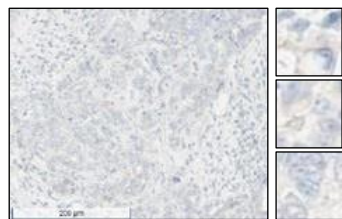
*Data from a randomized, double-blind, placebo-controlled, phase 2 study of patients with unresectable locally advanced or metastatic G/GEJ cancer.¹

ctDNA, circulating tumor deoxyribonucleic acid; FGFR2, fibroblast growth factor receptor 2; FGFR2b, fibroblast growth factor receptor 2b; G/GEJ, gastric or gastroesophageal junction; IHC, immunohistochemistry; NGS, next-generation sequencing.

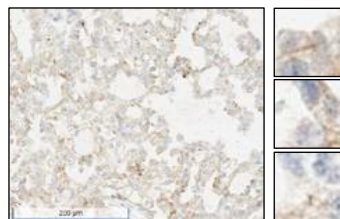
1. Wainberg ZA, et al. Presented at: American Society of Clinical Oncology Gastrointestinal Cancer Symposium; January 15-17, 2021; Online Virtual Scientific Program. Abstract LBA160. 2. National Cancer Institute. <https://www.cancer.gov/publications/dictionaries/cancer-terms/def/gene-amplification>. Accessed April 16, 2025. 3. Bolognesi B, et al. *Elife*. 2018;7:e39804. 4. Du Z, et al. *Mol Cancer*. 2018;17:58. 5. Sato Y, et al. *J Clin Med*. 2023;12:4646. 6. Catenacci D, et al. Presented at: American Society of Clinical Oncology (ASCO) Annual Meeting; June 4-8, 2021; Online Virtual Scientific Program. 7. Wainberg ZA, et al. *Gastric Cancer*. 2024;27:558-570.

FGFR2b Protein Overexpression Can Be Detected by IHC in G/GEJ Cancer¹

FGFR2b protein overexpression is defined as the presence of moderate (2+) to strong (3+) membranous staining of tumor cells^{2,3}



FGFR2b in gastric adenocarcinoma with **no (0) staining**



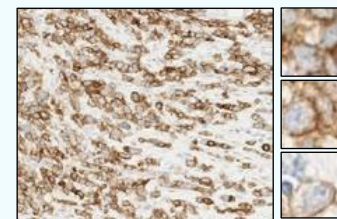
FGFR2b in gastric adenocarcinoma with predominantly **weak (1+) staining**

FGFR2b protein overexpression not detected in cell membrane⁴

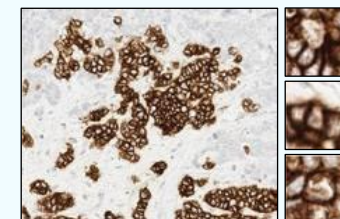
No tumor cells with moderate to strong membranous staining **OR** tumor cells only exhibiting:

- Negative to weak membranous staining and/or
- Cytoplasmic-only staining at any intensity

FGFR2b overexpression



FGFR2b in gastric adenocarcinoma with predominantly **moderate (2+) staining**



FGFR2b in gastric adenocarcinoma with predominantly **strong (3+) staining**

FGFR2b protein overexpression detected in cell membrane⁴

Any tumor cells with moderate to strong membranous staining, including any of the following:

- Basal-lateral
- Basal only
- Partial or complete circumferential
- Apical only

G/GEJ cancer is a heterogeneous disease and evaluating FGFR2b overexpression may require multiple biopsies⁵

- **Similar** to other gastric/GEJ cancer biomarkers, FGFR2b protein overexpression can be detected by IHC^{1,6}
- FGFR2b staining intensity on tumor slides can range from no (0) staining to strong (3+) staining⁴
- FGFR2b overexpression is **more common** in poorly differentiated ($P < 0.001$) and diffuse-type tumors ($P = 0.010$)^{7,*}
- Since antibody clones vary in epitope targeting and performance, selecting a **highly sensitive and specific clone** for FGFR2b detection should be considered^{8,‡}

Currently, FGFR2b testing is in the context of investigational clinical trials, with no approved test in the market. GC specimens were stained with the VENTANA® FGFR2b (FPR2-D) Mouse Monoclonal Antibody assay (Class 1) that recognizes the FGFR2b isoform via IHC.^{4,9}

*Diffuse-type histology defined per Lauren classification.²

DNA, deoxyribonucleic acid; FGFR2b, fibroblast growth factor receptor 2b; GC, gastric cancer; G/GEJ, gastric or gastroesophageal junction; IHC, immunohistochemistry.

1. Rha SY, et al. *JCO Precis Oncol.* 2025;9:e2400710. 2. Wainberg ZA, et al. *Lancet Oncol.* 2022;23:1430-1440. 3. Catenacci D, et al. Presented at: American Society of Clinical Oncology; June 4-8, 2021; Online Virtual Scientific Program. 4. Data on file, Amgen; 2021. 5. Tsimafeyeu I, et al. *Oncol Rev.* 2023;17:11790. 6. Choi S, et al. *Biomedicines.* 2022;10:543. 7. Ahn S, et al. *Mod Pathol.* 2016;29:1095-1103. 8. Goldsmith JD, et al. *Arch Pathol Lab Med.* 2024;148:e1111-e1153. 9. FDA. <https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfRL/rl.cfm?lid=516262&lpcd=NJT>. Accessed May 14, 2025.

Biomarker Testing Considerations for Patients With Advanced G/GEJ Cancer

G/GEJ, gastric or gastroesophageal junction.

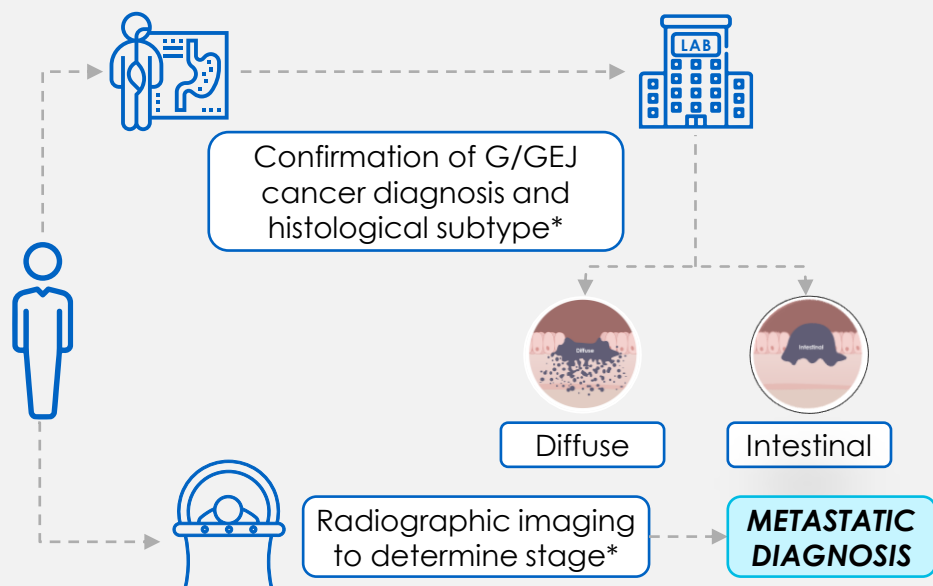
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Diagnostic Workflow for Advanced G/GEJ Cancer

Histopathological workup and staging^{1,2}

Endoscopic evaluation suggestive of G/GEJ cancer; biopsy of metastatic disease as clinically indicated; tissue biopsy sent to lab for histological diagnosis



Potential biomarker testing workflow options upon diagnosis of metastatic disease

Guideline recommended biomarkers for advanced G/GEJ cancer^{1,2}

Biomarker	Testing method [†]
MSI	PCR/NGS
MMR	IHC
HER2 (ERBB2)	IHC/ISH, NGS
PD-L1	IHC
CLDN18.2	IHC
TMB	NGS
NTRK gene fusion	NGS
RET gene fusion	NGS
BRAF V600E mutation	NGS

- Pathologist-initiated reflex testing^{3,4}
- Diagnosis sent back to gastroenterologist (GE) → **GE orders biomarker workup** and refers patient to medical oncologist → medical oncologist has access to biomarker results at first patient visit³
- Diagnosis sent back to GE → GE refers patient to medical oncologist → **medical oncologist orders biomarker workup** at first patient visit

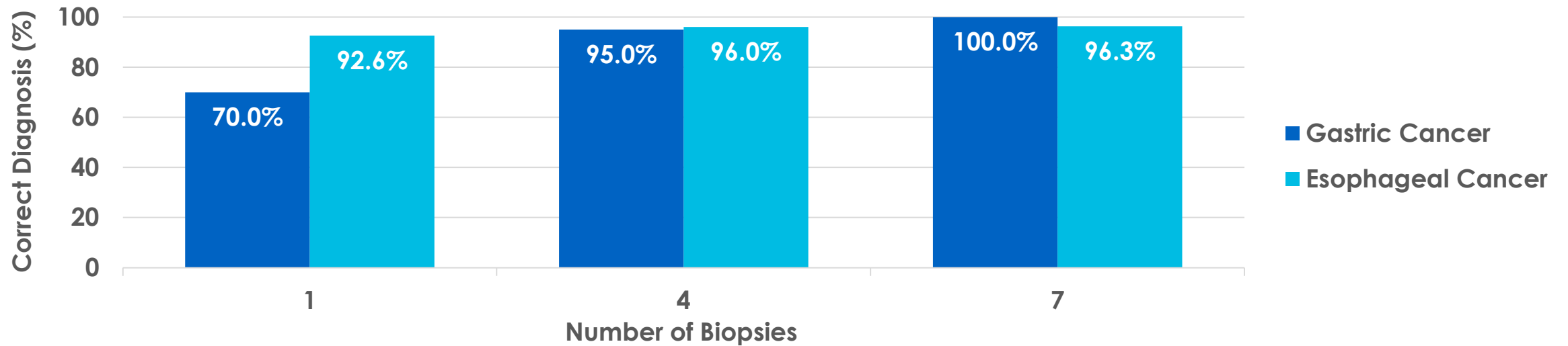
*Assessment of Siewert tumor type should also be included as part of the initial workup in all patients with G/GEJ adenocarcinoma.^{1,2} †IHC/ISH/targeted PCR is the preferred approach to assess biomarkers initially. However, NGS testing through a CLIA-approved laboratory may be considered later in the clinical course of patients with sufficient tumor tissue available for testing.^{1,2}

BRAF, proto-oncogene B-Raf; CLDN18.2, claudin-18 isoform 2; CLIA, Clinical Laboratory Improvement Amendments; ERBB2, erb-b2 receptor tyrosine kinase 2; G/GEJ, gastric/gastroesophageal junction; GE, gastroenterologist; HER2, human epidermal growth factor receptor 2; IHC, immunohistochemistry; ISH, in situ hybridization; MMR, mismatch repair; MSI, microsatellite instability; NGS, next-generation sequencing; NTRK, neurotrophic tyrosine kinase receptor; PCR, polymerase chain reaction; PD-L1, programmed cell death ligand 1; RET, rearranged during transfection; TMB, tumor mutational burden.

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Multiple (6–8) Biopsies Are Optimal for G/GEJ Cancer Diagnosis

Biopsy number impact on diagnosis accuracy¹
(n = 202 consecutive patients [155 benign, 47 EC/GC]); data from a 1982 prospective study



Multiple (6–8) biopsies using standard-size endoscopy forceps should be performed to provide adequately sized material for histologic and molecular interpretation, especially in the setting of an ulcerated lesion^{1,2}

EC, esophageal cancer; G/GEJ, gastric/gastroesophageal junction; GC, gastric cancer.

1. Graham DY, et al. Gastroenterology. 1982;82:228-231. 2. Referenced with permission from the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Gastric Cancer V.2.2025. © National Comprehensive Cancer Network, Inc. 2025. All rights reserved. Accessed April 21, 2025. To view the most recent and complete version of the guideline, go online to NCCN.org. NCCN makes no warranties of any kind whatsoever regarding their content, use, or application and disclaims any responsibility for their application or use in any way.

MDT Considerations for Biomarker Testing in Patients With Advanced G/GEJ Cancer



Optimizing tissue acquisition

- Effective communication between gastroenterologists and pathologists may help with obtaining sufficient tissue quantity and quality for biomarker testing¹
- Multiple (6–8) biopsies should be performed to provide adequately sized material for histological and molecular interpretation²
- Tissue acquisition procedures for biomarker testing should minimize risk to the patient while ensuring adequate tissue yield¹

Optimizing ordering and reporting workflows

- Pathologists and oncologists can support the development and implementation of reflex testing protocols to:
 - Reduce turnaround time for acquisition of biomarker testing results³
 - Ensure equitable testing: all patients who meet diagnostic criteria receive testing⁴
 - Decrease time to treatment plan³
- Documenting test results in the patient's electronic health record may allow for easier provider access and retrieval of results throughout the patient journey⁵

Staying current with rapidly evolving practice standards

- Consider multidisciplinary tumor boards and other formal venues to educate on:¹
 - Biomarker testing strategies
 - Evolving guidelines

G/GEJ, gastric/gastroesophageal junction; MDT, multidisciplinary team.

1. Levy BP, et al. *Oncologist*. 2015;20:1175-1181. **2.** Referenced with permission from the NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines®) for Gastric Cancer V.2.2025. © National Comprehensive Cancer Network, Inc. 2025. All rights reserved. Accessed April 21, 2025. To view the most recent and complete version of the guideline, go online to NCCN.org. NCCN makes no warranties of any kind whatsoever regarding their content, use, or application and disclaims any responsibility for their application or use in any way. **3.** Gregg JP, et al. *Transl Lung Cancer Res*. 2019;8:286-301. **4.** ACCC. [www.accc-cancer.org/docs/projects/ehr/landscape-analysis-ehr-\(175\)-digital.pdf?sfvrsn=fa6e9d78_6&](http://www.accc-cancer.org/docs/projects/ehr/landscape-analysis-ehr-(175)-digital.pdf?sfvrsn=fa6e9d78_6&). Accessed April 20, 2025. **5.** Kim ES, et al. *J Thorac Oncol*. 2019;14:338-342.

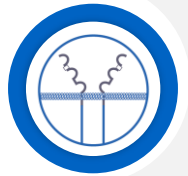
Key Takeaways



- Despite treatment advances, prognosis remains poor for many patients with advanced G/GEJ cancers. Most patients with gastric cancer are diagnosed at an advanced stage with low rates of survival¹⁻³



- G/GEJ cancers are complex and heterogenous diseases characterized by the expression of a variety of biomarkers. As the biomarker landscape continues to evolve, it may inform advancements in precision medicine^{3,4}



- FGFR2b is an emerging protein biomarker overexpressed in ~ 38%* of advanced gastric/GEJ cancer patients^{5,*}
- FGFR2b protein overexpression can be evaluated by IHC and may require multiple biopsies due to tumor heterogeneity^{3,6}



- MDT considerations for biomarker testing in patients with advanced/metastatic G/GEJ cancer may include:
 - Optimizing tissue acquisition⁷
 - Optimizing ordering and reporting workflows⁷
 - Staying current with rapidly evolving practice standards^{8,9}

*FGFR2b protein overexpression is defined as any percentage of tumor cells with moderate (2+) to strong (3+) membranous staining, as detected by IHC.⁷

FGFR2b, fibroblast growth factor receptor 2, isoform IIIb; G/GEJ, gastric/gastroesophageal junction; IHC, immunohistochemistry; MDT, multidisciplinary team.

1. National Cancer Institute. <https://seer.cancer.gov/statfacts/html/stomach.html>. Accessed April 15, 2025. 2. Li Y, et al. *Cancer Control*. 2022;29:10732748221099227. 3. Sato Y, et al. *J Clin Med*. 2023;12:4646. 4. Wainberg ZA, et al. *Gastric Cancer*. 2024;27:558-570. 2024;27:558-570. 5. Rha SY, et al. *JCO Precis Oncol*. 2025;9:e2400710. 6. Tsimafeyeu I, Raskin G. *Oncol Rev*. 2023;17:11790. 7. Gregg JP, et al. *Transl Lung Cancer Res*. 2019;8:286-301. 8. Levy BP, et al. *Oncologist*. 2015;20:1175-1181. 9. Kim ES, et al. *J Thorac Oncol*. 2019;14:338-342.