Know Your Biomarker

RAF | CEA | ctDNA | DPYD | FAP | HER2 | KRAS | Lyn

HER2

MSI | MSS | NRAS | NTRK

K3CA | TMB | Tumor Location/Sidedness | UGT1A1 | P

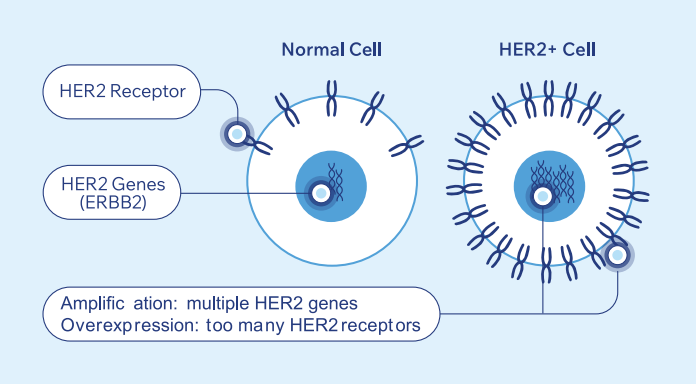
Who should have HER2 biomarker testing?

If you have stage IV / metastatic colorectal cancer (bowel cancer) you should be tested for HER2. Stage IV or metastatic means that the cancer has spread to other organs or parts of the body.

However, if your cancer already has an identified KRAS, NRAS, or BRAF mutation, HER2 testing is not recommended.

What is HER2?

HER2 (also known as ERBB2) is a gene that plays a role in the control of cell growth and cell survival. Some cells may have an increased number of copies of the HER2 gene. This is called gene amplification or overexpression and causes the cells to make too much HER2 protein (too many HER2 receptors). When gene amplification occurs, it can cause cancer by allowing abnormal control of cell growth and survival.



↓

Biomarker testing can give you and your medical team valuable knowledge about your cancer and help guide your treatment choices. For more information about colorectal cancer biomarkers, please visit knowyourbiomarker.org and talk to your medical team.

How is HER2 tested? How are the results reported?

HER2 is primarily tested with a tumor (tumour) biopsy sample but may also be tested in a blood sample. It can be tested individually, or as part of a multiple gene panel using next-generation sequencing (NGS).

HER2 results are reported as “negative” or “positive”. Negative means the there is no HER2 gene amplification or overexpression. Positive means that HER2 gene amplification is present.

What do my HER2 results mean for me? How do they impact my treatment?

If your HER2 result is “negative”, meaning your cancer does not have HER2 gene amplification

- → Approximately 95% of all colorectal cancers are HER2 negative.
- → Your treatment options include traditional chemotherapy and targeted therapy and/or immunotherapy based on the results of your other biomarker testing.

If your HER2 result is “positive”, meaning your cancer does have HER2 gene amplification or overexpression

- → 3-5% of all colorectal cancers have HER2 amplification. The percentage is higher in colorectal cancer with wild-type (non-mutant) KRAS, NRAS, and BRAF.
- → Your treatment options include therapies that directly target HER2 amplification.
- → HER2 inhibitor combinations like trastuzumab and pertuzumab, trastuzumab and lapatinib, or trastuzumab and tucatinib alone or with traditional chemotherapy may be effective.
- → Fam-trastuzumab deruxtecan-nxki is a combined HER2 inhibitor and traditional chemotherapy drug that is used in HER2 positive colorectal cancer.
- → EGFR inhibitors (for example cetuximab, panitumumab) are less effective in colorectal cancer with HER2 amplification.
- → There are ongoing clinical trials for treatments that are more effective against colorectal cancers with HER2 amplification. Talk to your medical team about whether you could benefit from a clinical trial.

Thank you to our sponsors and partners for their support of the Know Your Biomarker program.