TUMOR TESTING
Immunohistochemistry (IHC) Test

What is the IHC test?

Immunohistochemistry (IHC) is a test that looks for certain proteins in a tumor sample. This test is commonly done on tumors from the colon, rectum, and uterus. It can also be done on other types of tumors. IHC is used to learn more about the tumor. It can help guide your treatment and may identify people with an inherited cancer risk, called Lynch syndrome.

What does the IHC test evaluate?

The IHC test looks for four proteins:

- MLH1
- MSH2
- MSH6
- PMS2

These proteins are normally found in a tumor but can be absent (missing) in some cases. When a protein is absent, it gives information about how the cancer started, how best to treat it, and whether it could be linked to Lynch syndrome.

What is Lynch syndrome?

Lynch syndrome is a type of inherited cancer risk that runs in families. The most common cancers that happen with Lynch syndrome are:

- Colon cancer
- Rectal cancer
- Uterine (endometrial) cancer
- Ovarian cancer
- Urinary tract cancer

Families with Lynch syndrome may have more cancers at younger ages than a typical family. People with Lynch syndrome also have a higher chance of having more than one cancer in their lifetime. Learning who has Lynch syndrome can help that person and their family get the right medical care.

What does my IHC result mean?

❖ **"Normal expression" - All four proteins are present in your tumor.**

This result means you most likely do not have Lynch syndrome. Normal expression is found about 80% of the time (8 out of every 10 tests). Your doctors will discuss treatment options with you based on the stage of your cancer at diagnosis.

❖ **"Abnormal expression" - One or more of the proteins is absent in your tumor.**

This result means you might have Lynch syndrome. Abnormal expression is found about 20% of the time (2 out of every 10 tests).

- **If MLH1 or PMS2 proteins are absent**
  It is less likely that you have Lynch syndrome. More testing on the tumor is routinely done to check for Lynch syndrome. You will be contacted by KP Genetics Department to review your results if Lynch syndrome is suspected.

- **If MSH2 or MSH6 proteins are absent**
  It is possible you have Lynch syndrome. You will be contacted by KP Genetics Department to review your results. A genetic counselor will ask about your family history, discuss genetic testing options, and answer questions about what this means for your health care.