

Key Antibodies For Colon Cancer



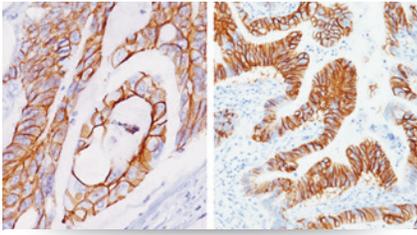
Colon cancers are the 4th most diagnosed cancer in the United States, with about 8% of all new cancer cases classified as colon and rectal cancer, contributing approx. 8.4% of cancer deaths yearly. As of 2012, there were approximately 1,170,000 people living with colon and rectal cancers in the United States. Those diagnosed with colon cancer have a 5 year survival rate of 64.9%. Over the last 10 years, the new cancer case rate has fallen an average of 3.1% each year but the death rate has been stable. Biocare Medical is proud to offer key colon antibodies that may aid in the identification of their respective proteins by IHC in FFPE tissues.

SEER Cancer Statistics Factsheets: Colon and Rectum Cancer. National Cancer Institute. Bethesda, MD, <http://seer.cancer.gov/statfacts/html/colorect.html>

Key Antibodies for Colon Cancer

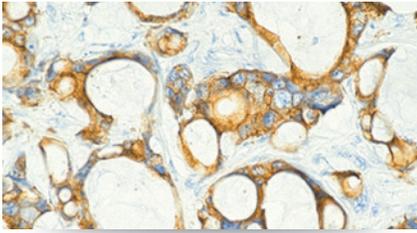
Product Name	Source	Clone	Catalog Number
CDH17 (M)		1H3	ACI 3111; API 3111; AVI 3111
CDX2		CDX2-88	CM 226; PM 226; IP 226; OAI 226; VP 226
CDX2 (M) + CDH17 (RM)	 + 	CDX2-88 + EP86	API 3135DS
Cytokeratin 20		Ks20.8	CM 062; PM 062; IP 062; OAI 062
MLH-1		G168-15	CM 220; PM 220; IPI 220; OAI 220
MSH2		FE11	CM 219; PM 219; OAI 219
MSH6		BC/44	CM 265; PM 265; IPI 265; OAI 265
PMS2		A16-4	CM 344; PM 344; IPI 344
Villin		1D2C3	PM 094

Key Antibodies for Colon



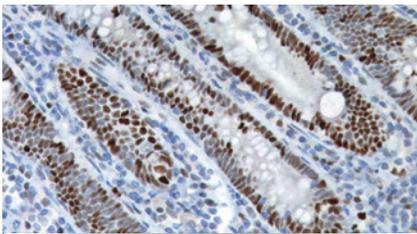
CDH17 (M)

CDH17 is a highly specific marker in colon cancer and is a more sensitive marker than CDX2 and CK20. It may be helpful for early diagnosis of Barrett's esophagus. CDH17 staining is positive in the majority of colorectal adenocarcinomas and a significant portion of gastric, pancreatic and biliary adenocarcinomas.



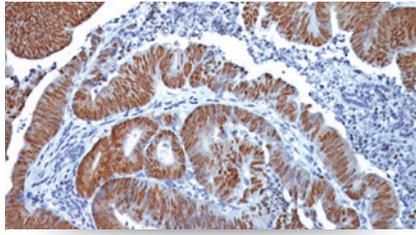
Cytokeratin 20

Cytokeratin 20 is expressed in adenocarcinomas of the colon, stomach, pancreas, bile system, transitional cell carcinomas of the urinary tract, and Merkel cell carcinomas. Cytokeratin 20 is often used in conjunction with CK7 in distinguishing colon carcinomas from ovarian, pulmonary, and breast carcinomas.



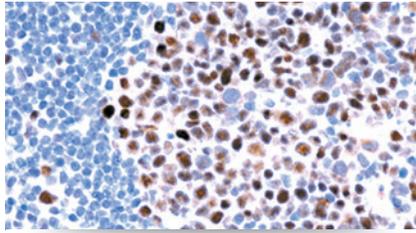
MSH6

MSH6 is a heterodimer of MSH2. MLH-1 and MSH2 are involved in the DNA mismatch repair (MMR) process. Mutations in the MSH-1, MSH2 and MSH6 genes contribute to the development of sporadic colorectal carcinoma. Use with MLH-1, MSH2 and PMS2 to assess tumors for MMR deficiency.



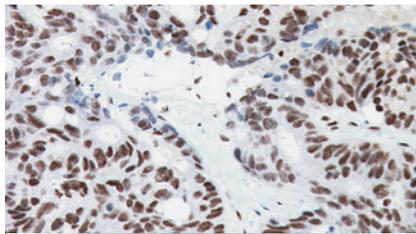
CDX2

CDX2 is expressed in the nuclei of epithelial cells of the intestine, from duodenum to rectum. Studies have shown that CDX2 is a sensitive marker for colonic carcinoma metastatic to the ovary and is more specific than CK20 as it is not expressed by serous and endometrioid carcinomas.



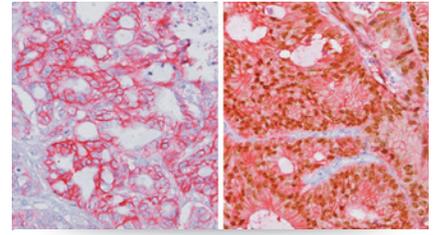
MLH-1

Inactivation of MLH-1, a DNA mismatch repair (MMR) gene, can lead to microsatellite instability (MSI). MSI is found in approximately 15% of all colorectal cancers. About 90% of Lynch syndrome based colorectal carcinomas exhibit MSI. Use with MSH2, MSH6 and PMS2 to assess tumors for MMR deficiency.



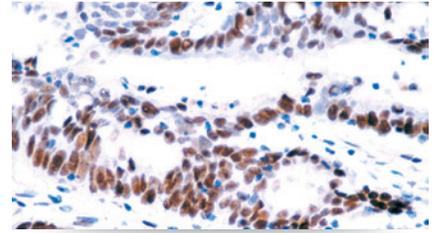
PMS2

PMS2 forms a heterodimer with MLH1 that interacts with MSH2. PMS2 may be a useful tool to screen for Lynch syndrome after a colorectal cancer diagnosis, as identification of patients with the syndrome is key for proper treatment. Use with MLH-1, MSH2 and MSH6 to assess tumors for MMR deficiency.



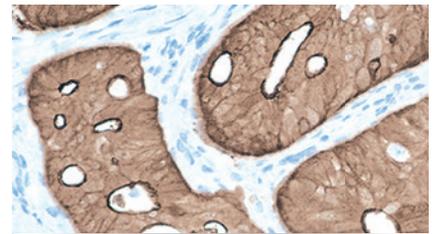
CDX2 (M) + CDH17 (RM)

Compared to CDX2 or CK20 alone, the combination of CDX2 and CDH17 is highly sensitive and somewhat specific for colorectal and stomach adenocarcinoma, especially in cases with a CK7-/CDX2-/CK20- carcinoma. CDX2 and CDH17 may improve specificity compared to using CK20, CDX2 and Villin.



MSH2

Mutations in the MSH2 gene contribute to the development of sporadic colorectal carcinoma. Mutations of MSH2, a DNA mismatch repair (MMR) gene, are responsible for 50% of hereditary non-polyposis colorectal cancer. Use with MLH-1, MSH6 and PMS2 to assess tumors for MMR deficiency.



Villin

Villin is a very specific marker for gastrointestinal tumors, pancreatic adenocarcinomas, Merkel cell, ovarian and kidney. Used in a panel with CK7, CK20 and CDX2, Villin can be a very useful tool in differentiating colon adenocarcinoma from breast carcinoma or lung adenocarcinoma.