BIOCARE MEDICAL

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. 8.3% of cancer deaths yearly. As of 2013, there were approximately 1,180,000 people living with colon and rectal cancers in the United States. Those diagnosed with colon cancer have a 5 year survival rate of 65.1%. Over the last 10 years, the new cancer case rate has fallen an average of 3.2% each year and the death rate has been falling on average 2.7% each year. Biocare Medical is proud to offer key colon antibodies that may aid in the identification of their respective proteins by IHC in FFPE tissues.

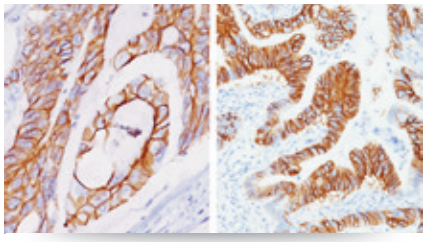
SEER Cancer Statistics Factsheets: Colon and Rectum Cancer. National Cancer Institute. Bethesda, MD http://seer.cancer.gov/statfacts/html/colorect.html

Key Antibodies for Colon Cancer

Product Name	Source	Clone	Catalog Number
CDH17 (M)		1H3	ACI 3111; API 3111; AVI 3111
CDX2 (RM)		EP25	ACI 3144; API 3144
CDX2 (M) + CDH17 (RM)		CDX2-88 + EP86	API 3135DS
Cytokeratin 20 (CK20)		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; OAI 344
ERCC1		4F9	ACI 3147

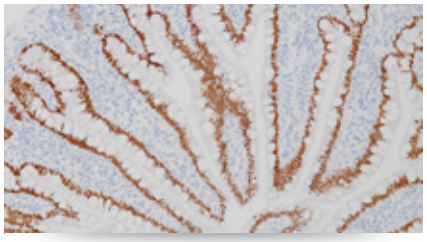
www.biocare.net/colon

Key Antibodies for Colon



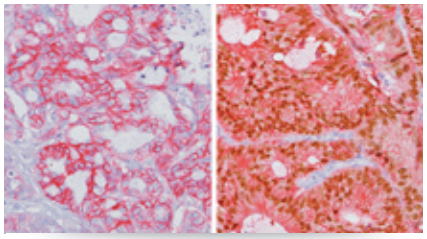
CDH17 (M)

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.



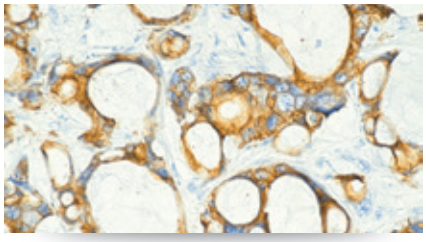
CDX2 (RM)

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. The rabbit monoclonal is more sensitive with fewer false negatives than mouse clones.



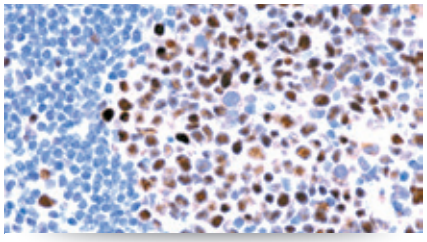
CDX2 (M) + CDH17 (RM)

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.



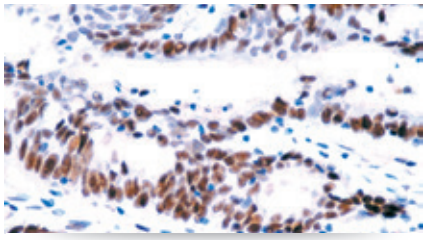
Cytokeratin 20 (CK20)

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.



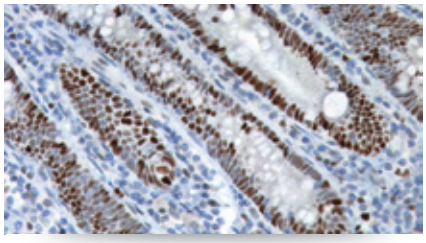
MLH-1

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.



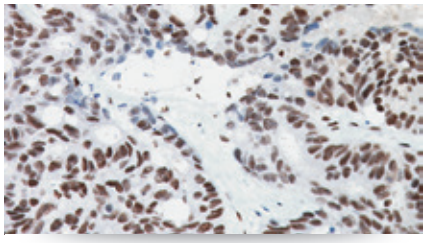
MSH2

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.



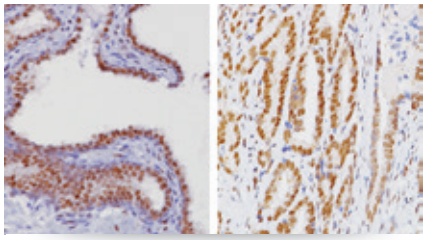
MSH6

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.



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.



ERCC1

Excision repair cross-complementation group 1 (ERCC1) expression may be a maker for predicting metastatic colorectal cancer patient response to oxaliplatin. Lower expression may indicate longer survival. Clone 4F9 (unlike clone 8F10) does not show cross-reaction with PCYT1A, an unrelated protein.

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