



Colorectal Adenocarcinoma Marker (C241:5:1:4): sc-59150

BACKGROUND

Colorectal cancer includes cancerous growths in the colon, rectum and appendix. It is the third most common type of cancer and the second leading cause of death among cancers in the Western world. Colorectal carcinoma may take many years to develop, and early detection of colorectal cancer greatly improves the chances of a cure. The most common colon cancer cell type is adenocarcinoma, a malignant epithelial tumor, originating from glandular epithelium of the colorectal mucosa, which accounts for 95% of cases. Mutations in specific DNA sequences, among which are included the APC, K-Ras and p53 genes, lead to unrestricted cell division. Various causes for these mutations include inborn genetic aberrations, tobacco smoking, environmental and possibly viral causes. Markers of colorectal carcinoma are important research tools and may aid in discovering more about the behavior of the cancer cells.

REFERENCES

1. Winawer, S.J., Zauber, A.G., Ho, M.N., O'Brien, M.J., Gottlieb, L.S., Sternberg, S.S., Waye, J.D., Schapiro, M., Bond, J.H. and Panish, J.F. 1994. Prevention of colorectal cancer by colonoscopic polypectomy. The National Polyp Study Workgroup. *N. Engl. J. Med.* 329: 1977-1981.
2. Gryfe, R., Swallow, C., Bapat, B., Redston, M., Gallinger, S. and Couture, J. 1998. Molecular biology of colorectal cancer. *Curr. Probl. Cancer* 21: 233-300.
3. Breivik, J. and Gaudernack, G. 1999. Genomic instability, DNA methylation and natural selection in colorectal carcinogenesis. *Semin. Cancer Biol.* 9: 245-254.
4. Cummings, J.H. and Bingham, S.A. 1999. Diet and the prevention of cancer. *BMJ* 317: 1636-1640.
5. Roncucci, L., Pedroni, M., Vaccina, F., Benatti, P., Marzona, L. and De Pol, A. 2000. Aberrant crypt foci in colorectal carcinogenesis. *Cell and crypt dynamics.* *Cell Prolif.* 33: 1-18.
6. Chao, A., Thun, M.J., Connell, C.J., McCullough, M.L., Jacobs, E.J., Flanders, W.D., Rodriguez, C., Sinha, R. and Calle, E.E. 2005. Meat consumption and risk of colorectal cancer. *JAMA* 293: 172-182.
7. Komarova, N.L. and Wang, L. 2005. Initiation of colorectal cancer: where do the two hits hit? *Cell Cycle* 3: 1558-1565.
8. Mosolits, S., Nilsson, B. and Mellstedt, H. 2005. Towards therapeutic vaccines for colorectal carcinoma: a review of clinical trials. *Expert Rev. Vaccines* 4: 329-350.
9. van Leeuwen, I.M., Byrne, H.M., Jensen, O.E. and King, J.R. 2006. Crypt dynamics and colorectal cancer: advances in mathematical modelling. *Cell Prolif.* 39: 157-181.

SOURCE

Colorectal Adenocarcinoma Marker (C241:5:1:4) is a mouse monoclonal antibody raised against COLO 205 of human origin.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PRODUCT

Each vial contains 250 µl IgG1 in PBS with < 0.1% sodium azide and 1% BSA.

APPLICATIONS

Colorectal Adenocarcinoma Marker (C241:5:1:4) is recommended for detection of Sialyl Lewis a, epitope CA 19-9 (a useful marker in the diagnosis and management of gastrointestinal cancers) of human origin by immunofluorescence (starting dilution to be determined by researcher, dilution range 1:50-1:500) and immunohistochemistry (including paraffin-embedded sections) (starting dilution to be determined by researcher, dilution range 1:50-1:500); non cross-reactive with Lewis a and Lewis b.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Immunofluorescence: use goat anti-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 2) Immunohistochemistry: use ImmunoCruz™: sc-2050 or ABC: sc-2017 mouse IgG Staining Systems.

STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.