Technical Data Sheet

Purified Mouse Anti-MCC

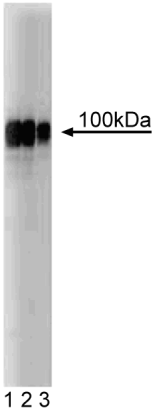
Product Information

Material Number:	**610740**
Alternate Name:	Mutated in Colorectal Cancer
Size:	50 µg
Concentration:	250 µg/ml
Clone:	1/MCC
Immunogen:	Human MCC aa. 5-146
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human Tested in Development: Mouse, Rat
Target MW:	100 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

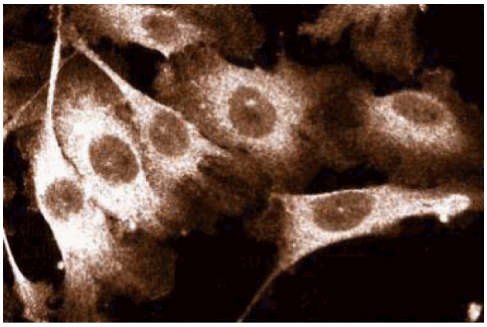
Description

The **M**utated in **C**olorectal **C**ancer gene (MCC) was identified as a tumor suppressor that is deleted in sporadic and familial colorectal cancers. MCC is located at chromosome region 5q21. This region is often deleted in and associated with adenomas and carcinomas. Allele losses in the regions contiguous to MCC correlate with a high rate of colorectal tumors. MCC has been reported to be widely expressed and most abundant in epithelial cells and brain. It is a protein of 829 amino acids with a short sequence homologous to the m3 muscarinic acetylcholine receptor. Immunolocalization studies show MCC in the lateral plasma membrane of intestinal epithelial cells. In brain, MCC is abundant in the molecular layer of the cerebellum and is associated with various organelles, such as the plasma membrane. Although overexpression of wild type MCC protein blocks progression through the cell cycle, a mutated MCC, that contains a Gln instead of Arg-506, does not. Therefore, wild type MCC functions as a negative regulator of the cell cycle. Mutations or deletions in MCC might interfere with its physiological role and allow unrestricted cell proliferation (i.e. tumor formation).

This antibody is routinely tested by western blot analysis. Other applications were tested at BD Biosciences Pharmingen during antibody development only or reported in the literature.



Western blot analysis of MCC on a human endothelial cell lysate. *Lane 1: 1:500, lane 2: 1:1000, lane 3: 1:2000 dilution of the anti- MCC antibody.*



Immunofluorescence staining of human endothelial cells.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at -20° C.

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Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development
Immunohistochemistry-formalin (antigen retrieval required)	Tested During Development
Immunoprecipitation	Not Recommended

Suggested Companion Products

Catalog Number	Name	Size	Clone
611450	Human Endothelial Cell Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Igs	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Igs	0.5 mg	Polyclonal

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Ashton-Rickardt PG, Wyllie AH, Bird CC, et al. MCC, a candidate familial polyposis gene in 5q.21, shows frequent allele loss in colorectal and lung cancer. *Oncogene.* 1991; 6(10):1881-1886.(Biology)

Huang JS, Chiang CP, Kok SH, Kuo YS, Kuo MY. Loss of heterozygosity of APC and MCC genes in oral squamous cell carcinomas in Taiwan. *J Oral Pathol Med.* 1997; 26(7):322-326.(Biology)

Kinzler KW, Nilbert MC, Vogelstein B, et al. Identification of a gene located at chromosome 5q21 that is mutated in colorectal cancers. *Science.* 1991; 251(4999):1366-1370.(Biology)

Matsumine A, Senda T, Baeg GH, et al. MCC, a cytoplasmic protein that blocks cell cycle progression from the G0/G1 to S phase. *J Biol Chem.* 1996; 271(17):10341-10346.(Biology)

McKie AB, Filipe MI, Lemoine NR. Abnormalities affecting the APC and MCC tumour suppressor gene loci on chromosome 5q occur frequently in gastric cancer but not in pancreatic cancer. *Int J Cancer.* 1993; 55(4):598-603.(Biology)