Technical Data Sheet

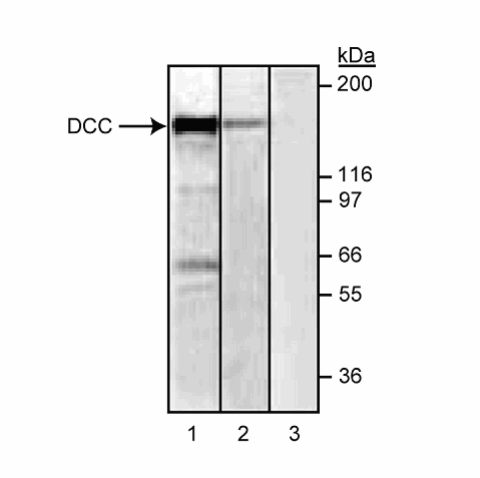
Purified Mouse Anti-Human DCC

Product Information

Material Number:	**554222**
Alternate Name:	Deleted in Colon Cancer
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	G92-13
Immunogen:	Recombinant Human DCC (extracellular domain)
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human
Target MW:	175-190 kDa
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

One of the most common regions of allelic loss in colorectal tumors is chromosome 18, which is lost in more than 70% of carcinomas, and in almost 50% of late adenomas. This region of loss has been mapped to chromosome 18q and a gene called Deleted in Colorectal Cancer (DCC). DCC encodes an ~185 kD glycoprotein with significant homology to the neural cell adhesion molecule and other related cell surface glycoproteins. The predicted amino acid sequence of DCC cDNA consists of a 1448 amino acid (aa) long transmembrane phosphoprotein. The extracellular domain consists of 1098 amino acids and has 42% sequence homology to cell adhesion proteins of the neural cell adhesion molecule (N-CAM) family. DCC mRNA is found to be expressed in normal colonic mucosa, but its expression is reduced or absent in the majority of colorectal carcinomas. The loss of heterozygosity and subsequent alteration of DCC expression has also been observed in tumors of non-colorectal origin. G92-13 recognizes human DCC. A truncated recombinant protein containing the extracellular domain of the human DCC was used as immunogen.



Western blot analysis of human DCC protein in 293 human embryonic kidney cells stably transfected with an expression vector containing full length DCC cDNA. *Lane 1, clone G97-449 (Cat. No. 554223), which recognizes an epitope in the intracellular domain of DCC. Lane 2, clone G92-13 (Cat. No. 554222), which recognizes an epitope in the extracellular domain of DCC. Lane 3, a mouse IgG1 isotype control.*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at 4°C.

Application Notes

Application

Western blot	Routinely Tested
Flow cytometry	Tested During Development

BD Biosciences

bdbiosciences.com

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	888.259.0187	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

For country-specific contact information, visit **bdbiosciences.com/how_to_order/**

Recommended Assay Procedure:
IMR 32 human neuroblastoma cells (ATCC CCL 127) are suggested as a positive control. By western blot, DCC-specific antibodies typically identify protein species with molecular weights of ~175-190 kD. Doublets in this range have been reported in brain. Several smaller immunoreactive species, representing degradation products, cross-reactive species, or DCC forms arising from alternative splicing of DCC mRNA or in vivo processing of the DCC protein may also be identified. Another DCC clone (mAb G97-449, Cat. No.554223) has been published for immunohistochemical staining of paraffin-embedded tissue sections.

Suggested Companion Products

Catalog Number	Name	Size	Clone
554223	Purified Mouse Anti-Human DCC	0.1 mg	G97-449

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.

References

Fearon ER, Cho KR, Nigro JM. Identification of a chromosome 18q gene that is altered in colorectal cancers. *Science.* 1990; 247(4938):49-56.(Biology)
Fearon ER, Hamilton SR, Vogelstein B. Clonal analysis of human colorectal tumors. *Science.* 1987; 238(4824):193-197.(Biology)
Reale MA, Hu G, Zafar AI, Getzenberg RH, Levine SM, Fearon ER. Expression and alternative splicing of the deleted in colorectal cancer (DCC) gene in normal and malignant tissues. *Cancer Res.* 1994; 54(16):4493-4501.(Clone-specific: Western blot)
Shibata D, Reale MA, Lavin P. The DCC protein and prognosis in colorectal cancer. *N Engl J Med.* 1996; 335(23):1727-1732.(Biology: Immunohistochemistry)
Vogelstein B, Fearon ER, Hamilton SR. Genetic alterations during colorectal-tumor development. *N Engl J Med.* 1988; 319(9):525-532.(Biology)