

DCC (A-1): sc-515834

BACKGROUND

DCC (deleted in colorectal cancer) was first identified as a candidate tumor suppressor gene based on its absence or reduced expression in the majority of colorectal cancers. Loss of DCC expression was subsequently observed in cancers of the breast, endometrium, brain, pancreas and prostate, as well as in leukemias, neuroblastomas and male germ cell cancers. DCC is a 1,447 amino acid transmembrane protein with highest expression in developing brain and neural tube and is suspected to play a role in mediating directional migration in the developing nervous system. Netrin-1, a chemoattractant for commissural axons in the spinal cord, has been identified as a ligand for DCC.

REFERENCES

1. Vogelstein, B., et al. 1989. Allelotype of colorectal carcinomas. *Science* 244: 207-211.
2. Fearon, E.R., et al. 1990. Identification of a chromosome 18q gene that is altered in colorectal cancers. *Science* 247: 49-56.
3. Hedrick, L., et al. 1994. The DCC gene product in cellular differentiation and colorectal tumorigenesis. *Genes Dev.* 8: 1174-1183.
4. Reale, M.A., et al. 1994. Expression and alternative splicing of the deleted in colorectal cancer (DCC) gene in normal and malignant tissues. *Cancer Res.* 54: 4493-4501.
5. Cooper, H.M., et al. 1995. Cloning of the mouse homologue of the deleted in colorectal cancer gene (mDCC) and its expression in the developing mouse embryo. *Oncogene* 11: 2243-2254.

CHROMOSOMAL LOCATION

Genetic locus: DCC (human) mapping to 18q21.2; Dcc (mouse) mapping to 18 E2.

SOURCE

DCC (A-1) is a mouse monoclonal antibody raised against amino acids 1159-1363 mapping near the C-terminus of DCC (deleted in colorectal cancer) of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

DCC (A-1) is available conjugated to agarose (sc-515834 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515834 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515834 PE), fluorescein (sc-515834 FITC), Alexa Fluor[®] 488 (sc-515834 AF488), Alexa Fluor[®] 546 (sc-515834 AF546), Alexa Fluor[®] 594 (sc-515834 AF594) or Alexa Fluor[®] 647 (sc-515834 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-515834 AF680) or Alexa Fluor[®] 790 (sc-515834 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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RESEARCH USE

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

APPLICATIONS

DCC (A-1) is recommended for detection of DCC of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for DCC siRNA (h): sc-35183, DCC siRNA (m): sc-35184, DCC shRNA Plasmid (h): sc-35183-SH, DCC shRNA Plasmid (m): sc-35184-SH, DCC shRNA (h) Lentiviral Particles: sc-35183-V and DCC shRNA (m) Lentiviral Particles: sc-35184-V.

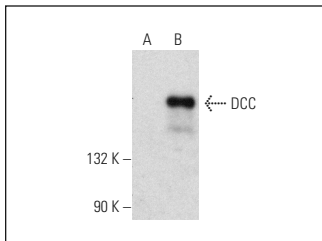
Molecular Weight of DCC: 190 kDa.

Positive Controls: DCC (h): 293T Lysate: sc-171131 or DCC (m): 293T Lysate: sc-375146.

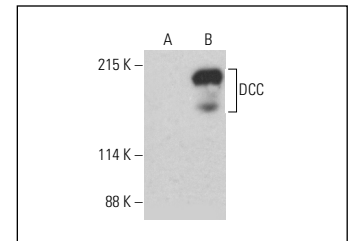
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



DCC (A-1): sc-515834. Western blot analysis of DCC expression in non-transfected: sc-117752 (A) and mouse DCC transfected: sc-375146 (B) 293T whole cell lysates.



DCC (A-1): sc-515834. Western blot analysis of DCC expression in non-transfected: sc-117752 (A) and human DCC transfected: sc-171131 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Ahn, E.H., et al. 2020. BDNF and Netrin-1 repression by C/EBPβ in the gut triggers Parkinson's disease pathologies, associated with constipation and motor dysfunctions. *Prog. Neurobiol.* E-published.
2. Jasmin, M., et al. 2020. Netrin-1 and its receptor DCC modulate survival and death of dopamine neurons and Parkinson's disease features. *EMBO J.* E-published.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.