

## DESCRIPTION

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Mouse                                                                                                                    |
| <b>Specificity</b>                                                                                                                                                                                      | Detects mouse DCC in direct ELISAs and Western blots.                                                                    |
| <b>Source</b>                                                                                                                                                                                           | Polyclonal Goat IgG                                                                                                      |
| <b>Purification</b>                                                                                                                                                                                     | Antigen Affinity-purified                                                                                                |
| <b>Immunogen</b>                                                                                                                                                                                        | <i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant mouse DCC<br>Phe32-Asn1097<br>Accession # P70211 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 700<br>Excitation Wavelength: 675-700 nm<br>Emission Wavelength: 723 nm                                      |
| <b>Formulation</b>                                                                                                                                                                                      | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide                                                             |
| *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |                                                                                                                          |

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.

|                                                |                                                                        |
|------------------------------------------------|------------------------------------------------------------------------|
| <b>Western Blot</b>                            | Optimal dilution of this antibody should be experimentally determined. |
| <b>Blockade of Receptor-ligand Interaction</b> | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunohistochemistry</b>                    | Optimal dilution of this antibody should be experimentally determined. |

## PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

## BACKGROUND

*Deleted in colorectal cancer (DCC)* was originally identified as a putative tumor suppressor gene that is lost in more than 70% of colorectal cancers. This gene has also been found to be deleted in several different kinds of cancers. DCC encodes a type I transmembrane glycoprotein that belongs to the immunoglobulin (Ig) superfamily. The extracellular domain is composed of four Ig-like domains and six fibronectin type III repeats. Two forms of the protein (the long and the short isoforms) are produced from the same gene by the use of alternative initiation sites. A third isoform that is produced by alternative splicing is expressed only in the embryo. The extracellular domain of mouse DCC shares 97% and 99% amino acid sequence identity with the human and rat DCC extracellular domains, respectively. In adults, DCC is highly expressed in the brain but is also expressed at very low levels in multiple tissues. In the embryo, high levels of expression are detected in the brain and neural tube. DCC has been shown to be a receptor for the netrins that are important for axon guidance. DCC has also been shown to induce apoptosis in the absence of ligand binding and to block apoptosis when engaged by netrin-1. DCC has been shown to be a caspase substrate. The pro-apoptotic effects of DCC were found to be dependent on the proteolytic cleavage of the unoccupied receptor by caspase. It is likely that DCC functions as a tumor-suppressor gene by inducing apoptosis in cells that are not exposed to netrins.

## PRODUCT SPECIFIC NOTICES

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