

# CDNF Antibody

Catalog # ASC10588

## Product Information

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| <b>Application</b>           | WB, IF, E, IHC-P                                                                                                                                                                                                   |
| <b>Primary Accession</b>     | <a href="#">Q49AH0</a>                                                                                                                                                                                             |
| <b>Other Accession</b>       | <a href="#">Q49AH0</a> , <a href="#">143955278</a>                                                                                                                                                                 |
| <b>Reactivity</b>            | Human, Mouse, Rat                                                                                                                                                                                                  |
| <b>Host</b>                  | Rabbit                                                                                                                                                                                                             |
| <b>Clonality</b>             | Polyclonal                                                                                                                                                                                                         |
| <b>Isotype</b>               | IgG                                                                                                                                                                                                                |
| <b>Calculated MW</b>         | 20964                                                                                                                                                                                                              |
| <b>Concentration (mg/ml)</b> | 1 mg/mL                                                                                                                                                                                                            |
| <b>Conjugate</b>             | Unconjugated                                                                                                                                                                                                       |
| <b>Application Notes</b>     | CDNF antibody can be used for detection of CDNF by Western blot at 2 - 4 $\mu$ g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 $\mu$ g/mL. For immunofluorescence start at 20 $\mu$ g/mL. |

## Additional Information

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| <b>Gene ID</b>                      | 441549                                                                                                                                                                                                                                       |
| <b>Other Names</b>                  | Cerebral dopamine neurotrophic factor, ARMET-like protein 1, Conserved dopamine neurotrophic factor, CDNF, ARMETL1                                                                                                                           |
| <b>Target/Specificity</b>           | ARMETL1; This antibody does not cross-react with MANF.                                                                                                                                                                                       |
| <b>Reconstitution &amp; Storage</b> | CDNF antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures. |
| <b>Precautions</b>                  | CDNF Antibody is for research use only and not for use in diagnostic or therapeutic procedures.                                                                                                                                              |

## Protein Information

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| <b>Name</b>              | CDNF                                                                                                                                                                                                                                                                                                |
| <b>Synonyms</b>          | ARMETL1                                                                                                                                                                                                                                                                                             |
| <b>Function</b>          | Trophic factor for dopamine neurons. Prevents the 6- hydroxydopamine (6-OHDA)-induced degeneration of dopaminergic neurons. When administered after 6-OHDA-lesioning, restores the dopaminergic function and prevents the degeneration of dopaminergic neurons in substantia nigra (By similarity). |
| <b>Cellular Location</b> | Secreted                                                                                                                                                                                                                                                                                            |

## Tissue Location

Widely expressed in neuronal and non-neuronal tissues. In the brain, highest levels in the optic nerve and corpus callosum.

## Background

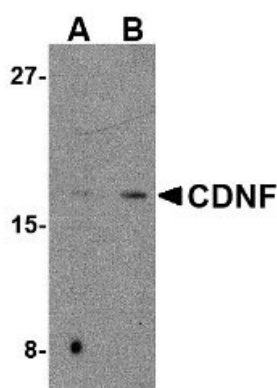
**CDNF Antibody:** The conserved dopamine neurotrophic factor (CDNF) is a neurotrophic factor for dopaminergic neurons and highly homologous to the mesencephalic-astrocyte-derived neuro-trophic factor. Somewhat surprisingly, CDCF is expressed at higher levels in tissues such as heart, skeletal muscle and testes than in brain. Similar to the glial cell line-derived neurotrophic factor (GDNF), CDFN can prevent the 6-hydroxylamine (6-OHDA)-induced degeneration of dopaminergic neurons in a rat model of Parkinson's disease. Furthermore, CDFN was able to restore the dopaminergic function and prevent the degeneration of dopaminergic neurons in the substantia nigra, suggesting that CDFN might be suitable for the treatment of Parkinson's disease. At least two isoforms of CDFN are known to exist.

## References

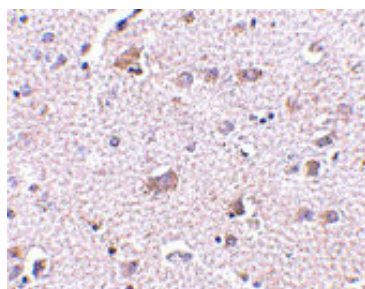
Lindholm P, Voutilainen MH, Lauren J, et al. Novel neurotrophic factor CDFN protects and rescues midbrain dopamine neurons in vivo. *Nature*2007; 448:73-7.

Petrova P, Raibekas A, Pevsner J, et al. MANF: a new mesencephalic, astrocyte-derived neurotrophic factor with selectivity for dopaminergic neurons. *J. Mol. Neurosci.*2003; 20:173-88.

## Images

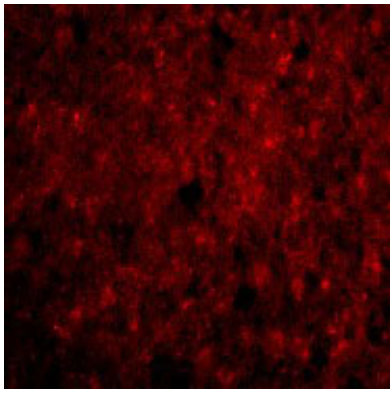


Western blot analysis of CDFN in mouse brain tissue lysate with CDFN antibody at (A) 2 and (B) 4 µg/mL.



Immunohistochemistry of CDFN in human brain tissue with CDFN antibody at 2.5 µg/mL.

Immunofluorescence of CDFN in Human Brain cells with CDFN antibody at 20 µg/mL.



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