

CDNF Antibody

Catalog # ASC10589

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	Q49AH0
Other Accession	Q49AH0 , 143955278
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	20964
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	CDNF antibody can be used for detection of CDNF by Western blot at 1 μ g/mL. Antibody can also be used for immunohistochemistry starting at 5 μ g/mL. For immunofluorescence start at 20 μ g/mL.

Additional Information

Gene ID	441549
Other Names	Cerebral dopamine neurotrophic factor, ARMET-like protein 1, Conserved dopamine neurotrophic factor, CDNF, ARMETL1
Target/Specificity	ARMETL1; This antibody does not cross-react with MANF.
Reconstitution & Storage	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.
Precautions	CDNF Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	CDNF
Synonyms	ARMETL1
Function	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).
Cellular Location	Secreted

Tissue Location

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

Background

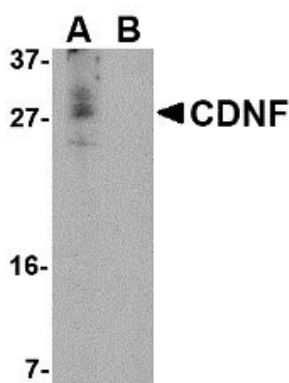
CDNF Antibody: The conserved dopamine neurotrophic factor (CDNF) is a neurotrophic factor for dopaminergic neurons and highly homologous to the mesencephalic-astrocyte-derived neuro-trophic factor. Somewhat surprisingly, CDCF is expressed at higher levels in tissues such as heart, skeletal muscle and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

References

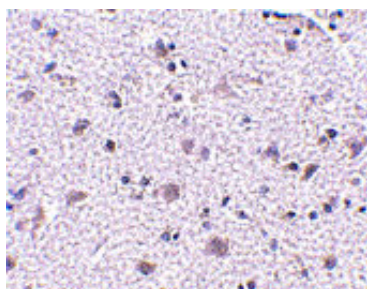
Lindholm P, Voutilainen MH, Lauren J, et al. Novel neurotrophic factor CDNF protects and rescues midbrain dopamine neurons in vivo. *Nature* 2007; 448:73-7.

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

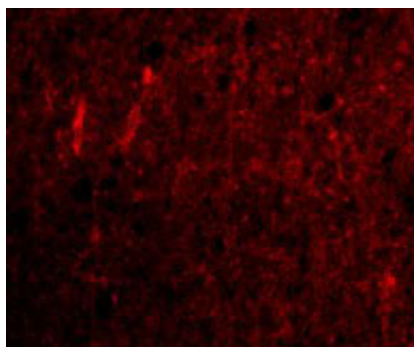


Western blot analysis of CDNF in A-20 cell lysate in (A) the absence and (B) the presence of blocking peptide with CDNF antibody at 1 $\mu\text{g/mL}$.



Immunohistochemistry of CDNF in human brain tissue with CDNF antibody at 5 $\mu\text{g/mL}$.

Immunofluorescence of CDNF in Human Brain cells with CDNF antibody at 20 $\mu\text{g/mL}$.



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