

TECHNICAL DATA SHEET

Recombinant Human CDNF (Carrier-free)

Catalog Number: 21-7099

RPx-Pro™ Recombinant Protein

PRODUCT INFORMATION

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Recombinant Human CDNF (Carrier-free)

DESCRIPTION

Cerebral Dopamine Neurotrophic Factor (CDNF), also known as ARMETL1, is a novel secreted protein that exhibits strong trophic activity on dopaminergic neurons, comparable to that of GDNF. It is structurally similar to MANF. This conserved neurotrophic factor promotes the survival, growth and function of dopaminergic neurons. Besides neurons, it is widely expressed in brain regions including cerebral cortex, cerebellum and hippocampus.

MOLECULAR MASS

Recombinant Human CDNF is comprised of 162 amino acids that result in an 18.5 kDa protein.

AMINO ACID SEQUENCE

MQEAGGRPGA DCEVCKEFLN RFYKSLIDRG VNFSLDTIEK ELISFCLDTK GKENRLCYYL GATKDAATKI LSEVTRPMSV HMPAMKICEK LKKLDSQICE LKYEKTLDLA SVDLRKMRVA ELKQILHSWG EECRACA EKT DYVNLIQELA PKYAATHPKT EL

SOURCE

E. coli

APPLICATIONS

Bioassay

PURITY

98 %

STORAGE

-20°C

PROTEIN CONTENT

Verified by UV Spectroscopy and/or SDS-PAGE gel.

ENDOTOXIN LEVEL

Endotoxin level is <0.1 ng/µg of protein (<1 EU/µg).

AUTHENTICITY

Verified by N-terminal and Mass Spectrometry analyses (when applicable).

CROSS REACTIVITY

BIOACTIVITY

The expected ED₅₀ is 15-25 µg/ml, as determined by the ability to stimulate the proliferation of rat C6 cells.

RESEARCH AREAS

Neurobiology, Stem Cells, Differentiation

RECONSTITUTION

See Certificate of Analysis (COA) for lot specific reconstitution information.

REFERENCES

Choi JM, Hong JH, Chae MJ, Ngyuen PH, Kang HS, Ma HI and Kim YJ. 2011. *Neurosci Lett.* 493(3): 97-101. Lohoff FW, Bloch PJ, Ferraro TN, Berrettini WH, Pettinati HM, Dackis CA, O'Brien CP, Kampman KM and Oslin DW. 2009. *Neurosci Lett.* 453(3): 199-203. Lindholm P, Voutilainen MH, Laurén J, Peränen J, Leppänen VM, Andressoo JO, Lindahl M, Janhunen S, Kalkkinen N, Timmusk T, et al. 2007. *Nature.* 448(7149): 73-77. Parkash V, Lindholm P, Peranen J, Kalkkinen N, Oksanen E, Saarma M, Leppanen VM and Goldman A. 2009. *Protein Eng Des Sel.* 22(4): 233-241.

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