

DESCRIPTION

Species Reactivity	Mouse
Specificity	Detects mouse CDNF in direct ELISAs. In direct ELISAs, less than 5% cross-reactivity with recombinant human CDNF is observed.
Source	Monoclonal Rat IgG _{2A} Clone # 560108
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant mouse CDNF Leu27-Leu187 Accession # Q8CC36
Conjugate	Alexa Fluor 488 Excitation Wavelength: 488 nm Emission Wavelength: 515-545 nm
Formulation	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.

Immunohistochemistry Optimal dilution of this antibody should be experimentally determined.

PREPARATION AND STORAGE

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

BACKGROUND

CDNF (conserved dopamine neurotrophic factor), also called Armet1 (arginine-rich, mutated in early stage tumors-like 1), is a 17-19 kDa secreted protein that shares 52% amino acid (aa) identity with mouse MANF (mesencephalic-astrocyte-derived neurotrophic factor), also called Armet (1). The Armet designation is not preferred, because the proteins as translated are not actually arginine-rich (1). However, both CDNF and MANF have a high proportion of charged residues, a pattern of eight cysteines shown to form intramolecular disulfide bonds, and a C-terminal endoplasmic reticulum retention signal (shown to function in MANF) (1-3). The mouse CDNF cDNA encodes a 187 aa protein with a 24 aa signal sequence and a 163 mature sequence (1). Mature mouse CDNF shares 80%, 87%, 83% and 82% aa identity with human, rat, equine and bovine CDNF, respectively. Although CDNF mRNA and protein are expressed in pre and postnatal mouse brain, they are mostly abundant in adult heart, skeletal muscle and testis. Transcripts within the postnatal mouse brain are concentrated in the hippocampus, thalamus, corpus callosum and optic nerve (1). Like MANF and GDNF, CDNF promotes survival of dopaminergic neurons in vitro (1, 4). In a rat Parkinson's disease model, CDNF also promotes rescue and restoration of dopaminergic neurons in vivo (1).

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