

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CDNF in direct ELISAs and Western blots. In direct ELISAs and Western blots, approximately 10% cross-reactivity with recombinant mouse CDNF is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human CDNF Gln25-Leu187 Accession # Q49AH0
Conjugate	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 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.

Western Blot	Optimal dilution of this antibody should be experimentally determined.
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) in mouse, is a 17-19 kDa secreted protein that shares 62% amino acid (aa) identity with human MANF (mesencephalic-astrocyte-derived neurotrophic factor), also called Armet in mouse (1). The Armet designation is not preferred, because the proteins when 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 disulfides, and a C-terminal endoplasmic reticulum retention signal (shown to function in MANF) (1-3). The human CDNF cDNA encodes a 187 aa protein with a 24 aa signal sequence and a 163 mature sequence (1). Mature human CDNF shares 80%, 84%, 90%, and 92% aa identity with mouse, rat, equine, and bovine CDNF, respectively. Although CDNF mRNA and protein are expressed in pre- and post-natal mouse brain, they are most 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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