

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 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.

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).

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.