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Product datasheet for TA328658

GDNF Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	WB: 1:200-1:2000
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)PEDYPDQFDDVMD, corresponding to amino acid residues 54-66 of human GDNF (precursor). Pro-domain of the GDNF protein.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.05% NaN3.
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	glial cell derived neurotrophic factor
Database Link:	NP_954701 Entrez Gene 14573 MouseEntrez Gene 25453 RatEntrez Gene 2668 Human P39905

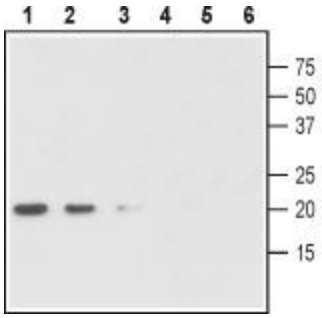
View online »

Background: Glial-Derived Neurotrophic Factor (GDNF) is a member of the TGF-β superfamily. GDNF signals through a multi-component receptor system, composed of a RET protooncogene and one of the four α1-α4 receptors. GDNF promotes survival of various neuronal cells, including motoneurons, Purkinje cells and sympathetic neurons. In embryonic midbrain cultures, GDNF promotes the survival and morphological differentiation of dopaminergic neurons and increases their high-affinity dopamine uptake. Cells that express GDNF include Sertoli cells, type 1 astrocytes, Schwann cells, neurons, pinealocytes, and skeletal muscle cells. In vivo, following transection of facial motor neuron axons, locally applied GDNF has been shown to rescue virtually all damaged neurons from death. GDNF may be of clinical relevance in the treatment of Parkinson's disease that is characterized by progressive degeneration of midbrain dopaminergic neurons. Recently, it has been hypothesized that functional, carboxy-terminally amidated peptides are processed from the GDNF precursor upon proteolytic cleavage by furin-like endopeptidase. Those different peptides (a 5-mer and 11-mer) have not been isolated endogenously to date. However, the rat 11-mer sequence (named brain excitatory peptide, BEP) significantly induced synaptic excitability and possessed some dopaminergic activities in vitro (thus named dopamine neuron stimulating peptides, DNSP). Furthermore, the human 11-mer sequence (named DNSP-11) exhibits neurotrophic-like properties. Thus, the role of the full proDomain of GDNF, which is a product of proteolytic cleavage of proGDNF, is not clearly understood yet.

Synonyms: ATF; ATF1; ATF2; HFB1-GDNF; HSCR3

Protein Families: Druggable Genome, Secreted Protein, Transmembrane

Product images:



Western blot analysis of human GDNF pro-domain fusion protein at 40 ng (lanes 1 and 4), 30 ng (lanes 2 and 5) and 20ng (lanes 3 and 6): 1-3. Anti-proGDNF antibody, (1:200). 4-6. Anti-proGDNF antibody, preincubated with the control peptide antigen. Note that the expected MW of the GDNF pro-domain fusion protein is 21kD