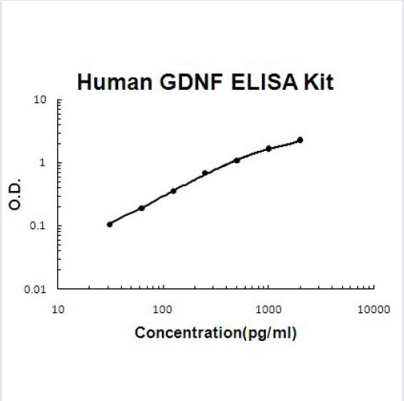
GDNF ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	GDNF, ELISA Kit
Full Product Name	Human GDNF PicoKine ELISA Kit
Product Gene Name	GDNF elisa kit
Product Synonym Names	Glial cell line-derived neurotrophic factor; glial cell derived neurotrophic factor; Astrocyte derived trophic factor; ATF; ATF1; ATF2; Glial cell line derived neurotrophic factor; HFB1 GDNF; hGDNF; HSCR3
Species Reactivity	Human
Assay Type	Sandwich
Samples	Cell culture supernates, serum and plasma (heparin, EDTA)
Detection Range	31.2pg/ml-2000pg/ml
Sensitivity	< 4pg/ml
Specificity	Natural and recombinant human GDNF
Preparation and Storage	Store at 4 degree C for 6 months, at -20 degree C for 12 months. Avoid multiple freeze-thaw cycles (Shipped with wet ice.)
Molecular Weight	18,123 Da
OMIM	gene 613711
3D Structure	ModBase 3D Structure for P39905
Production Time	Due to severe delay and raw materials shortage, production time may takes between 5-8 weeks.
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Related Product Information for GDNF elisa kit	**Principle of the assay:** human GDNF ELISA Kit was based on standard sandwich enzyme-linked immune-sorbent assay technology. A monoclonal antibody from mouse specific for GDNF has been precoated onto 96-well plates. Standards (NSO,R109-I211) and test samples are added to the wells, a biotinylated detection polyclonal antibody from goat specific for GDNF is added subsequently and then followed by washing with PBS or TBS buffer. Avidin-Biotin-Peroxidase Complex was added and unbound conjugates were washed away with PBS or TBS buffer. HRP substrate TMB was used to visualize HRP enzymatic reaction. TMB was catalyzed by HRP to produce a blue color product that changed into yellow after adding acidic stop solution. The density of yellow is proportional to the human GDNF amount of sample captured in plate. **Background:** Glial cell line-derived neurotrophic factor (GDNF) is a glycosylated, disulfide-bonded homodimer that is a distantly related member of the transforming growth factor-beta superfamily.1 GDNF, is a potent neurotrophic factor thatpromotes the survival of dopaminergic neurones in cultures including embryonic neuronal cultures.2 GDNF, inaddition to its potential role in the differentiation and survival of central nervous system neurons, has profound effects on kidney organogenesis and the development of the peripheral nervous system.3 GDNF may have utility inthe treatment of Parkinson's disease, which is marked by progressive degeneration of midbrain dopaminergic neurons.1 GDNF lies on the short arm of human chromosome 5, at 5p13.1-p13.3 ability to promote dopamineuptake in midbrain cultures.2
Other Notes	Small volumes of GDNF elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

Searchable Terms for GDNF purchase	MBS176009 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the GDNF, ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing GDNF. The ELISA analytical biochemical technique of the MBS176009 kit is based on GDNF antibody-GDNF antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect GDNF antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, GDNF. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).



Typical Testing Data/Standard Curve (for reference only) of GDNF elisa kit
Human GDNF PicoKine ELISA Kit standard curve

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for GDNF. It may not necessarily be applicable to this product.

NCBI GI #	729567
NCBI GeneID	2668
NCBI Accession #	P39905.1
UniProt Primary Accession #	P39905
UniProt Secondary Accession #	O95448; O95449; O95986; Q6FH33; Q96L44; Q9UD32; Q9UD33; Q9UMV2; Q9UP67; Q9UP97; B7WPK7
UniProt Related Accession #	P39905; AAB33493; AAB33494
NCBI Official Full Name	Glial cell line-derived neurotrophic factor
NCBI Official Synonym Full Names	glial cell derived neurotrophic factor
NCBI Official Symbol	GDNF
NCBI Official Synonym Symbols	ATF1; ATF2; HSCR3; HFB1-GDNF
UniProt Protein Name	Glial cell line-derived neurotrophic factor
UniProt Synonym Protein Names	Astrocyte-derived trophic factor; ATF
Protein Family	Glial cell line-derived neurotrophic factor
UniProt Gene Name	GDNF
UniProt Synonym Gene Names	hGDNF; ATF
UniProt Entry Name	GDNF_HUMAN
NCBI Protein Information	glial cell line-derived neurotrophic factor; ATF; astrocyte-derived trophic factor

NCBI Summary for GDNF	This gene encodes a highly conserved neurotrophic factor. The recombinant form of this protein was shown to promote the survival and differentiation of dopaminergic neurons in culture, and was able to prevent apoptosis of motor neurons induced by axotomy. The encoded protein is processed to a mature secreted form that exists as a homodimer. The mature form of the protein is a ligand for the product of the RET (rearranged during transfection) protooncogene. Multiple transcript variants encoding different isoforms have been found for this gene. Mutations in this gene may be associated with Hirschsprung disease. [provided by RefSeq, Jun 2010]
UniProt Comments for GDNF	GDNF: Neurotrophic factor that enhances survival and morphological differentiation of dopaminergic neurons and increases their high-affinity dopamine uptake. Defects in GDNF may be a cause of Hirschsprung disease type 3 (HSCR3). In association with mutations of RET gene, defects in GDNF may be involved in Hirschsprung disease. This genetic disorder of neural crest development is characterized by the absence of intramural ganglion cells in the hindgut, often resulting in intestinal obstruction. Defects in GDNF are a cause of congenital central hypoventilation syndrome (CCHS); also known as congenital failure of autonomic control or Ondine curse. CCHS is a rare disorder characterized by abnormal control of respiration in the absence of neuromuscular or lung disease, or an identifiable brain stem lesion. A deficiency in autonomic control of respiration results in inadequate or negligible ventilatory and arousal responses to hypercapnia and hypoxemia. Belongs to the TGF-beta family. GDNF subfamily. 5 isoforms of the human protein are produced by alternative splicing. Protein type: Secreted; Secreted, signal peptide Chromosomal Location of Human Ortholog: 5p13.1-p12 Cellular Component: extracellular region Molecular Function: protein homodimerization activity; growth factor activity; receptor binding Biological Process: nervous system development; positive regulation of dopamine secretion; axon guidance; peristalsis; adult locomotory behavior; mRNA stabilization; positive regulation of monooxygenase activity; regulation of dopamine uptake; signal transduction; enteric nervous system development; sympathetic nervous system development; regulation of gene expression; ureteric bud branching; induction of an organ; positive regulation of cell proliferation; postganglionic parasympathetic nervous system development; positive regulation of transcription from RNA polymerase II promoter; negative regulation of neuron apoptosis; positive regulation of cell differentiation; postsynaptic membrane organization; metanephros development; neural crest cell migration; neurite development; negative regulation of apoptosis Disease: Hirschsprung Disease, Susceptibility To, 3; Central Hypoventilation Syndrome, Congenital; Pheochromocytoma
Research Articles on GDNF	**1.** GDNF is a novel candidate gene of anxiety.
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