

Anti-GDNF Antibody

Catalog # ABO10784

Product Information

Application	WB, IHC-P, ICC
Primary Accession	P39905
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Glial cell line-derived neurotrophic factor(GDNF) detection. Tested with WB, IHC-P, ICC in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	2668
Other Names	Glial cell line-derived neurotrophic factor, hGDNF, Astrocyte-derived trophic factor, ATF, GDNF
Calculated MW	23720
Application Details	Immunocytochemistry , 0.5-1 μ g/ml, Human, - Immunohistochemistry(Paraffin-embedded Section), 0.5-1 μ g/ml, Human, Rat, Mouse, By Heat Western blot, 0.1-0.5 μ g/ml, Human
Subcellular Localization	Secreted .
Tissue Specificity	In the brain, predominantly expressed in the striatum with highest levels in the caudate and lowest in the putamen. Isoform 2 is absent from most tissues except for low levels in intestine and kidney. Highest expression of isoform 3 is found in pancreatic islets. Isoform 5 is expressed at very low levels in putamen, nucleus accumbens, prefrontal cortex, amygdala, hypothalamus and intestine. Isoform 3 is up-regulated in the middle temporal gyrus of Alzheimer disease patients while isoform 2 shows no change. .
Source	Eukaryota
Protein Name	Glial cell line-derived neurotrophic factor(hGDNF)
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.05mg NaN ₃ .
Immunogen	A synthetic peptide corresponding to a sequence in the middle region of

human GDNF(142-158aa FRYCSGSCDAAETTYDK), different from the related mouse sequence by three amino acids and rat sequence by two amino acids.

Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
Storage	At -20 °C for one year. After reconstitution, at 4 °C for one month. It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.
Sequence Similarities	Belongs to the TGF-beta family. GDNF subfamily.

Protein Information

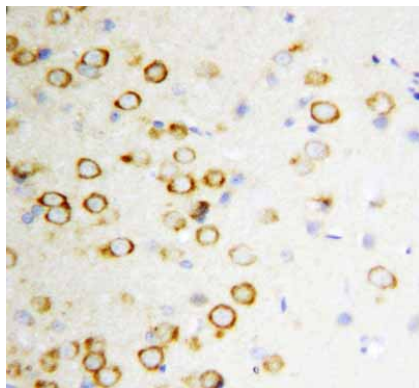
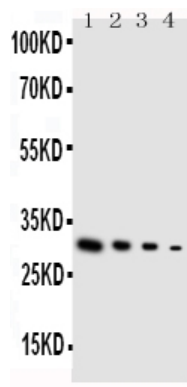
Name	GDNF
Function	Neurotrophic factor that enhances survival and morphological differentiation of dopaminergic neurons and increases their high-affinity dopamine uptake (PubMed: 8493557). Acts by binding to its coreceptor, GFRA1, leading to autophosphorylation and activation of the RET receptor (PubMed: 10829012 , PubMed: 25242331 , PubMed: 31535977). Involved in the development of the neural crest (PubMed: 15242795).
Cellular Location	Secreted
Tissue Location	In the brain, predominantly expressed in the striatum with highest levels in the caudate and lowest in the putamen. Isoform 2 is absent from most tissues except for low levels in intestine and kidney. Highest expression of isoform 3 is found in pancreatic islets. Isoform 5 is expressed at very low levels in putamen, nucleus accumbens, prefrontal cortex, amygdala, hypothalamus and intestine. Isoform 3 is up-regulated in the middle temporal gyrus of Alzheimer disease patients while isoform 2 shows no change.

Background

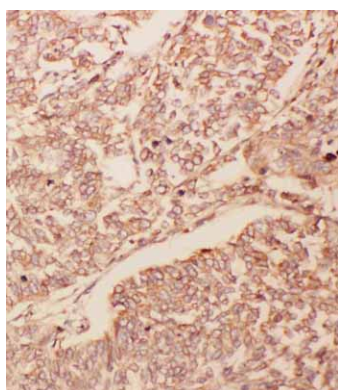
GDNF, Glial cell-derived neurotrophic factor, is a protein that, in humans, is encoded by the GDNF gene. GDNF is a small protein that potently promotes the survival of many types of neurons. GDNF is a founding member of the GDNF family of ligands (GFL). The GDNF gene is mapped to human chromosome 5p13.1-p12 by fluorescence in situ hybridization (FISH). 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.

Images

Anti-GDNF antibody, ABO10784, Western blotting
Lane 1: Recombinant Human GDNF Protein 10ng
Lane 2: Recombinant Human GDNF Protein 5ng
Lane 3: Recombinant Human GDNF Protein 2.5ng
Lane 4: SMMC Cell Lysate



Anti-GDNF antibody, ABO10784, IHC(P)IHC(P): Rat Brain Tissue



Anti-GDNF antibody, ABO10784, IHC(P)IHC(P): Human Lung Cancer Tissue

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.