



3050 Spruce Street
Saint Louis, Missouri 63103 USA
Telephone 800-325-5832 • (314) 771-5765
Fax (314) 286-7828
email: techserv@sial.com
sigma-aldrich.com

Product Information

ANTI-HUMAN GLIAL CELL LINE-DERIVED NEUROTROPHIC FACTOR (GDNF)

Developed in Goat
IgG Fraction of Antiserum

Product No. **G 8035**

Product Description

Anti-Human Glial Cell Line-derived Neurotrophic Factor was developed in goat using recombinant, human glial cell line-derived neurotrophic factor (rhGDNF), expressed in *E. coli*, as the immunogen. The product is purified by Protein G affinity chromatography. Goat Anti-Human GDNF is provided lyophilized from phosphate buffered saline, to which no preservatives have been added.

GDNF is a 20 kDa glycosylated polypeptide that exists as a homodimer.¹ The gene for GDNF has been mapped to human chromosome 5.² There is significant sequence homology between rat and human GDNF.¹ GDNF stimulates the growth of dopaminergic neurons and autonomic motor neurons.^{3,4} Recombinant GDNF is expressed in *E. coli* from a DNA sequence encoding the protein.

Product Profile

Anti-Human GDNF is tested for its ability to neutralize the biological activity of rhGDNF on embryonic chick dorsal root ganglia neurons. The ND₅₀ of the antibody is defined as the concentration of antibody resulting in a one-half maximal inhibition of bioactivity of rhGDNF, when rhGDNF is present at a concentration just high enough to elicit a maximum response.

Product Information

Mass/vial: 1 mg
Immunogen: Human, recombinant GDNF
Host Animal: Goat

Formulation: Lyophilized from PBS without additives.

Endotoxin: ≤10 ng/vial by LAL method

Bioactivity: ND₅₀ = 1-10 µg/ml

Indirect ELISA: 1 µg/ml antibody detects 0.2 ng/well of rhGDNF

Indirect Immunoblotting: 2 µg/ml antibody detects rhGDNF at 1.0 ng/lane under both reducing and non-reducing conditions

Sterility: 0.2 µm-filtered, aseptic fill

Reconstitution and Use

To one vial of lyophilized powder, add 1 ml of 0.2 µm-filtered PBS to produce a 1.0 mg/ml stock solution of Anti-Human GDNF. If aseptic technique is used, no further filtration should be needed for use in cell culture environments.

Storage

Prior to reconstitution, store at -20 °C. Reconstituted product may be stored at 2-8 °C for no more than one month. For prolonged storage, freeze in working aliquots at -20 °C. Avoid repeated freezing and thawing.

References

1. Lin, L-F, et al., *Science*, **260**, 1130 (1993).
2. Schindelhauer, D., et al., *Genomics*, **28**, 605 (1995).
3. Krieglestein, K., et al., *EMBO J.*, **14**, 736 (1995).
4. Ebendal, T., *J. Neurosci. Res.*, **40**, 276 (1995).

Pcs 12/00

Sigma brand products are sold through Sigma-Aldrich, Inc.

Sigma-Aldrich, Inc. warrants that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product(s) for their particular use. Additional terms and conditions may apply. Please see reverse side of the invoice or packing slip.