

VGF (H-65): sc-50407

BACKGROUND

Nerve growth factor (NGF) is a peptide that plays a key role in the differentiation and survival of neurons in the peripheral nervous system (PNS) and the central nervous system (CNS). VGF is a peptide synthesized and secreted by neurons and is upregulated by NGF in the PC12 cell line. VGF is widely expressed in both the PNS and CNS, but is especially abundant in the adult hypothalamus. VGF plays an essential role in how the brain regulates energy expenditure and body weight. Its expression is rapidly induced by injury, the circadian clock and neuronal activity.

REFERENCES

1. Possenti, R., et al. 1989. A protein induced by NGF in PC12 cells is stored in secretory vesicles and released through the regulated pathway. *EMBO J.* 8: 2217-2223.
2. Salton, S.R., et al. 1991. Structure of the gene encoding VGF, a nervous system-specific mRNA that is rapidly and selectively induced by nerve growth factor in PC12 cells. *Mol. Cell. Biol.* 11: 2335-2349.
3. Mahata, M., et al. 1993. Messenger RNA levels of chromogranin B, secretogranin II and VGF in rat brain after AF64A-induced septohippocampal cholinergic lesions. *J. Neurochem.* 61: 1648-1656.

CHROMOSOMAL LOCATION

Genetic locus: VGF (human) mapping to 7q22.1; Vgf (mouse) mapping to 5 G2.

SOURCE

VGF (H-65) is a rabbit polyclonal antibody raised against amino acids 159-223 mapping within an internal region of VGF of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

VGF (H-65) is recommended for detection of VGF of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

VGF (H-65) is also recommended for detection of VGF in additional species, including bovine and equine.

Suitable for use as control antibody for VGF siRNA (h): sc-42328, VGF siRNA (m): sc-42329, VGF siRNA (r): sc-72031, VGF shRNA Plasmid (h): sc-42328-SH, VGF shRNA Plasmid (m): sc-42329-SH, VGF shRNA Plasmid (r): sc-72031-SH, VGF shRNA (h) Lentiviral Particles: sc-42328-V, VGF shRNA (m) Lentiviral Particles: sc-42329-V and VGF shRNA (r) Lentiviral Particles: sc-72031-V.

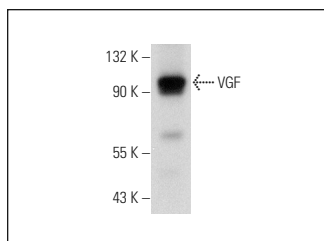
Molecular Weight of VGF: 90 kDa.

Positive Controls: PC-12 + NGF cell lysate: sc-3808.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



VGF (H-65): sc-50407. Western blot analysis of VGF expression in NGF treated PC-12 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Zhao, Z., et al. 2008. VGF is a novel biomarker associated with muscle weakness in amyotrophic lateral sclerosis (ALS), with a potential role in disease pathogenesis. *Int. J. Med. Sci.* 5: 92-99.
2. Rozek, W., et al. 2013. Mass spectrometry identification of granins and other proteins secreted by neuroblastoma cells. *Tumour Biol.* 34: 1773-1781.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **VGF (B-8): sc-365397** or **VGF (B-6): sc-515482**, our highly recommended monoclonal alternatives to VGF (H-65).