

VGF Antibody

VGF: Neurosecretory protein VGF, VGF nerve growth factor inducible

CATALOG No.: 4611

BACKGROUND:

VGF was initially identified as a rapidly regulated gene product in nerve growth factor-treated PC12 cells (1). This protein is synthesized in neurons in the central and peripheral nervous system as well as in the pituitary, adrenal medulla, endocrine cells of the stomach, and pancreatic beta cells (2). VGF is thought to be involved in organism energy balance and regulation of homeostasis as mice lacking this gene show deficits in these areas (3). More recent results suggest that VGF is upregulated by brain-derived neurotrophic factor (BDNF) and can stimulate the proliferation of hippocampal progenitor cells and produce antidepressant-like behavioral effects (4), suggesting that this pathway may be a suitable target for therapeutic treatments.

SOURCE:

Rabbit polyclonal VGF antibody was raised against a 17 amino acid peptide near the carboxy terminus of the human VGF (GenBank accession no. NP_003369).

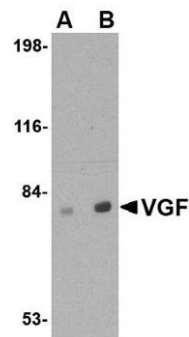
APPLICATION:

VGF antibody can be used for detection of VGF by Western blot at 0.5 – 1 µg/ml. (Optimal dilution should be determined by user.) Human brain tissue lysate can be used as positive control. VGF antibody is human, mouse and rat reactive.

For research use only.

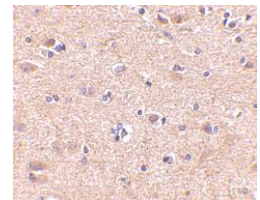
STORAGE:

VGF antibody is supplied as immunoaffinity purified IgG in PBS containing 0.02% sodium azide. Store at 4°C, stable for one year.



Western blot analysis of VGF in human brain tissue lysate with VGF antibody at (A) 0.5 and (B) 1 µg/ml.

Immunohistochemistry of VGF in human brain with VGF antibody at 5 µg/ml.



RELATED PRODUCTS:

Blocking Peptide, Catalog No. **4611P**.
Human Brain Tissue Lysate, Catalog No. **1303**.
Beta-Actin Antibody (NT), Catalog No. **3779**.
GAPDH Antibody (NT), Catalog No. **3783**.

REFERENCES:

1. Levi A, Eldridge JD, and Paterson BM. Molecular cloning of a gene sequence regulated by nerve growth factor. *Science* 1985; 229:393-5.
2. Possenti R, Eldridge JD, Paterson BM, et al. A protein induced by NGF in PC12 cells is stored in secretory vesicles and released through the regulatory pathway. *EMBO J.* 1989; 8:2217-23.
3. Hahn S, Mizuno TM, Wu TJ, et al. Targeted deletion of the Vgf gene indicates that the encoded secretory peptide precursor plays a novel role in the regulation of energy balance. *Neuron* 1999; 23:537-48.
4. Thakker-Varia S, Krol JJ, Nettleton J, et al. The neuropeptide VGF produces antidepressant-like behavioral effects and enhances proliferation in the hippocampus. *J. Neurosci.* 2007; 27:12156-67. (08-01D)