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.

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

SOURCE
VGF (B-8) is a mouse monoclonal antibody raised against amino acids 159-223 mapping within an internal region of VGF of human origin.

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

VGF (B-8) is available conjugated to agarose (sc-365397 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365397 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365397 PE), fluorescein (sc-365397 FITC), Alexa Fluor® 488 (sc-365397 AF488), Alexa Fluor® 546 (sc-365397 AF546), Alexa Fluor® 594 (sc-365397 AF594) or Alexa Fluor® 647 (sc-365397 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365397 AF680) or Alexa Fluor® 790 (sc-365397 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Molecular Weight Standards: sc-2035, UltraCruz® Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-365397 HRP. Direct western blot analysis of VGF expression in PC-12 whole cell lysates.

SELECT PRODUCT CITATIONS

RECOMMENDED SUPPORT REAGENTS
To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGx BP-HRP: sc-516102 or m-IgGx BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGx BP-FITC: sc-516140 or m-IgGx BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

APPLICATIONS
VGF (B-8) is recommended for detection of VGF of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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

Molecular Weight of VGF: 90 kDa.

Positive Controls: PC-12 + NGF cell lysate: sc-3808 or PC-12 cell lysate: sc-2250.

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

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