SANTA CRUZ BIOTECHNOLOGY, INC.

$G_{\beta\ 2}$ (N-18): sc-25017

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Heterotrimeric G proteins function to relay information from cell surface receptors to intracellular effectors. Each of a very broad range of receptors specifically detects an extracellular stimulus (i.e. a photon, pheromone, odorant, hormone or neurotransmitter), while the effectors (e.g. adenyl cyclase), which act to generate one or more intracellular messengers, are less numerous. In mammals, G protein α, β and γ polypeptides are encoded by at least 16, 4 and 7 genes, respectively. Most interest in G proteins has been focused on their α subunits, since these proteins bind and hydrolyze GTP and most obviously regulate the activity of the best studied effectors. Evidence, however, has established an important regulatory role for the $\beta\gamma$ subunits. The G protein β subunits are important regulators of G protein α subunits as well as of certain signal transduction receptors and effectors. In mammals, there are five different members of the β subunit family.

CHROMOSOMAL LOCATION

Genetic locus: GNB2 (human) mapping to 7q22.1; Gnb2 (mouse) mapping to 5 G2.

SOURCE

$G_{\beta\ 2}$ (N-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of $G_{\beta\ 2}$ 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.

Blocking peptide available for competition studies, sc-25017 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

$G_{\beta\ 2}$ (N-18) is recommended for detection of $G_{\beta\ 2}$ 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).

$G_{\beta\ 2}$ (N-18) is also recommended for detection of $G_{\beta\ 2}$ in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for $G_{\beta\ 2}$ siRNA (h): sc-41764, $G_{\beta\ 2}$ siRNA (m): sc-41765, $G_{\beta\ 2}$ shRNA Plasmid (h): sc-41764-SH, $G_{\beta\ 2}$ shRNA Plasmid (m): sc-41765-SH, $G_{\beta\ 2}$ shRNA (h) Lentiviral Particles: sc-41764-V and $G_{\beta\ 2}$ shRNA (m) Lentiviral Particles: sc-41765-V.

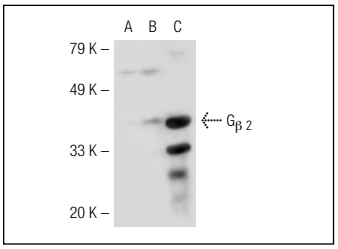
Molecular Weight of $G_{\beta\ 2}$: 36 kDa.

Positive Controls: $G_{\beta\ 2}$ (h): 293T Lysate: sc-117217, rat brain extract: sc-2392 or mouse brain extract: sc-2253.

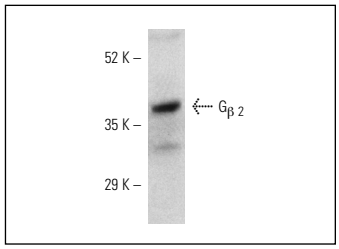
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



$G_{\beta\ 2}$ (N-18): sc-25017. Western blot analysis of $G_{\beta\ 2}$ expression in non-transfected: sc-117752 (**A**) and mouse $G_{\beta\ 2}$ transfected: sc-117217 (**B**) 293T whole cell lysates and mouse brain tissue extract (**C**).



$G_{\beta\ 2}$ (N-18): sc-25017. Western blot analysis of $G_{\beta\ 2}$ expression in rat brain tissue extract.

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.