

$G_{\beta 4}$ (C-16): sc-382

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. adenylyl 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: GNB4 (human) mapping to 3q26.33; Gnb4 (mouse) mapping to 3 A3.

SOURCE

$G_{\beta 4}$ (C-16) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within a divergent domain in the N-terminus of $G_{\beta 4}$ of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-382 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

$G_{\beta 4}$ (C-16) is recommended for detection of $G_{\beta 4}$ of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

$G_{\beta 4}$ (C-16) is also recommended for detection of $G_{\beta 4}$ in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for $G_{\beta 4}$ siRNA (h): sc-41768, $G_{\beta 4}$ siRNA (m): sc-41769, $G_{\beta 4}$ shRNA Plasmid (h): sc-41768-SH, $G_{\beta 4}$ shRNA Plasmid (m): sc-41769-SH, $G_{\beta 4}$ shRNA (h) Lentiviral Particles: sc-41768-V and $G_{\beta 4}$ shRNA (m) Lentiviral Particles: sc-41769-V.

Positive Controls: mouse lung extract: sc-2390 or MCP-5 whole cell lysate.

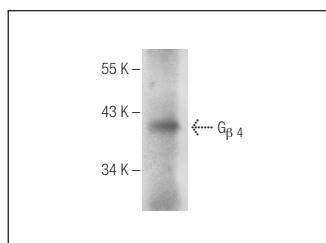
STORAGE

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

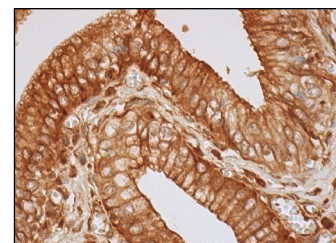
RESEARCH USE

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

DATA



$G_{\beta 4}$ (C-16): sc-382. Western blot analysis of $G_{\beta 4}$ expression in mouse lung tissue extract.



$G_{\beta 4}$ (C-16): sc-382. Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing membrane and cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

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- Wolfe, J.T., et al. 2003. T-type calcium channel regulation by specific G-protein $\beta\gamma$ subunits. *Nature* 424: 209-213.
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- Facello, B., et al. 2009. Glial cell line-derived neurotrophic factor in Purkinje cells of adult zebrafish: an autocrine mode of action? *Neurosci. Lett.* 465: 133-137.
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- Wainford, R.D. and Kapusta, D.R. 2012. Functional selectivity of central G_{α} -subunit proteins in mediating the cardiovascular and renal excretory responses evoked by central α_2 -adrenoceptor activation *in vivo*. *Br. J. Pharmacol.* 166: 210-220.

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Try $G_{\beta 4}$ (F-3): **sc-374383**, our highly recommended monoclonal alternative to $G_{\beta 4}$ (C-16).