SANTA CRUZ BIOTECHNOLOGY, INC.

$G_{\beta\ 2}$ (H-300): sc-25413

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. Each subunit of the G protein complex is encoded by a member of one of three corresponding gene families (α, β, γ). In mammals, there are five different members of the β-subunit family. The β subunits of the G proteins are important regulators of G protein a subunits as well as of certain signal transduction receptors and effectors. In contrast to $G_{\beta\ 2}$, which are at least 83% homologous, $G_{\beta\ 25}$ is only 50% homologous to the other β subunits. Human $G_{\beta\ 2}$ is expressed at high levels in brain, pancreas, kidney, and heart.

REFERENCES

1. Blatt, C., et al. 1988. Chromosomal localization of genes encoding guanine nucleotide-binding protein subunits in mouse and human. Proc. Nat. Acad. Sci. 85: 7642-7646.
2. Modi, W.S., et al. 1989. Chromosomal localization of the gene encoding a third form of the β subunit of GTP-binding regulatory proteins. (Abstract) Cytogenet. Cell Genet. 51: 1046.
3. Levine, M.A., et al. 1990. Chromosomal localization of the genes encoding two forms of the G-protein β polypeptide, β-1 and β-3, in man. Genomics 8: 380-386.
4. Simon, M.I., et al. 1991. Diversity of G proteins in signal transduction. Science 252: 802-808.
5. von Weizsäcker, E., et al. 1992. Diversity among the β subunits of heterotrimeric GTP-binding proteins: characterization of a novel β subunit cDNA. Biochem. Biophys. Res. Commun. 183: 350-356.
6. Kleuss, C., et al. 1992. Different β subunits determine G protein interaction with transmembrane receptors. Nature 358: 424-426.

SOURCE

$G_{\beta\ 2}$ (H-300) is a rabbit polyclonal antibody raised against amino acids 1-300 mapping at 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.

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.

APPLICATIONS

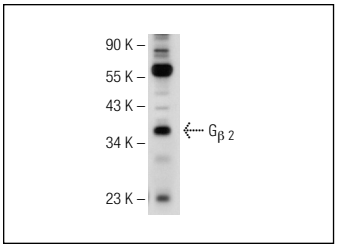
$G_{\beta\ 2}$ (H-300) is recommended for detection of $G_{\beta\ 1}$-$G_{\beta\ 4}$ and, to a lesser extent, $G_{\beta\ 5}$ of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), 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).

$G_{\beta\ 2}$ (H-300) is also recommended for detection of $G_{\beta\ 1}$-$G_{\beta\ 4}$ and, to a lesser extent, $G_{\beta\ 5}$ in additional species, including equine, canine, bovine, porcine and avian.

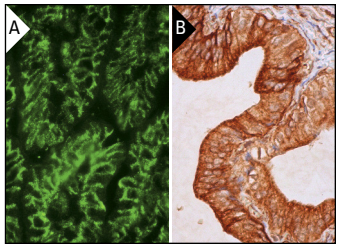
Molecular Weight of $G_{\beta\ 2}$: 36 kDa.

Positive Controls: mouse brain extract: sc-2253, Jurkat whole cell lysate: sc-2204 or Y79 cell lysate: sc-2240.

DATA



$G_{\beta\ 2}$ (H-300): sc-25413. Western blot analysis of $G_{\beta\ 2}$ expression in Y79 whole cell lysate.



$G_{\beta\ 2}$ (H-300): sc-25413. Immunofluorescence staining of normal mouse intestine frozen section showing membrane staining (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing cytoplasmic and membrane staining of glandular cells (**B**).

PROTOCOLS

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