SANTA CRUZ BIOTECHNOLOGY, INC.

$G_{\alpha\ 13}$ (G-15): sc-26787

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

γ-glutamyltranspeptidase (GGT) acts as a glutathionase and catalyzes the transfer of the glutamyl moiety of glutathione to a variety of amino acids and dipeptide acceptors. This enzyme is located on the outer surface of the cell membrane and is widely distributed in mammalian tissues involved in absorption and secretion. In humans, hepatic GGT activity is elevated in some liver diseases. GGT1 is released into the bloodstream after liver damage, and an elevated level of the enzyme may be a useful early sign of hepatocellular carcinoma. GGT5 converts leukotriene C4 to leukotriene D4; it does not, however, convert synthetic substrates that are commonly used to assay GGT. In human serum and in human tissues, there is a marked heterogeneity in GGT, but this heterogeneity can be attributed to different glycosylation of the same peptide rather than to the products of different genes. The genes which encode GGT1 and GGT2 map to human chromosome 22q11.23.

CHROMOSOMAL LOCATION

Genetic locus: GNA13 (human) mapping to 17q24.1; Gna13 (mouse) mapping to 11 E1.

SOURCE

$G_{\alpha\ 13}$ (G-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of $G_{\alpha\ 13}$ 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-26787 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

$G_{\alpha\ 13}$ (G-15) is recommended for detection of $G_{\alpha\ 13}$ 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).

$G_{\alpha\ 13}$ (G-15) is also recommended for detection of $G_{\alpha\ 13}$ in additional species, including porcine and avian.

Suitable for use as control antibody for $G_{\alpha\ 13}$ siRNA (h): sc-35427, $G_{\alpha\ 13}$ siRNA (m): sc-35428, $G_{\alpha\ 13}$ shRNA Plasmid (h): sc-35427-SH, $G_{\alpha\ 13}$ shRNA Plasmid (m): sc-35428-SH, $G_{\alpha\ 13}$ shRNA (h) Lentiviral Particles: sc-35427-V and $G_{\alpha\ 13}$ shRNA (m) Lentiviral Particles: sc-35428-V.

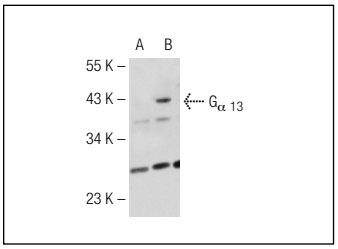
Molecular Weight of $G_{\alpha\ 13}$: 44 kDa.

Positive Controls: $G_{\alpha\ 13}$ (h): 293T Lysate: sc-115367, F9 cell lysate: sc-2245 or KNRK whole cell lysate: sc-2214.

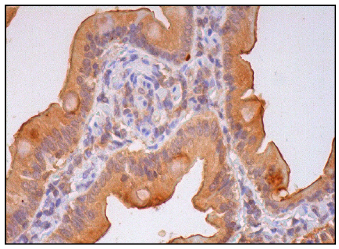
RECOMMENDED SECONDARY REAGENTS

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



$G_{\alpha\ 13}$ (G-15): sc-26787. Western blot analysis of $G_{\alpha\ 13}$ expression in non-transfected: sc-117752 (**A**) and human $G_{\alpha\ 13}$ transfected 293T: sc-115367 (**B**) 293Twhole cell lysates.



$G_{\alpha\ 13}$ (G-15): sc26787. Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum tissue showing cytoplasmic and apical membrane staining of squamous epithelial cells.

STORAGE

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

PROTOCOLS

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