SANTA CRUZ BIOTECHNOLOGY, INC.

TIG1 (G-2): sc-390461

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Retinoids act through ligand-dependent transcription factors, retinoid X receptor (RXRs) and retinoic acid receptors (RARs). Tazarotene-induced gene (TIG) proteins, also designated retinoic acid receptor responder proteins or RAR-responsive proteins, can be membrane bound or secreted. TIGs act as tumor suppressor genes in human cancers and are highly expressed in skin, hair follicles and endothelial cells as well as in pancreas, spleen and intestine. TIGs are activated by tazarotene and have been implicated as growth regulators that mediate the growth suppressive effects of retinoids. TIG1 is a single-pass type II membrane protein activated by tazarotene and RAR proteins. It belongs to the protease inhibitor I47 (latexin) family of proteins. TIG2 is a secreted protein that is mainly expressed in epidermis, hair follicles and endothelial cells. TIG2 is inhibited in psoriatic lesions and is activated by tazarotene in skin rafts and in epidermis of psoriatic lesions. TIG3 is widely expressed in most tissues, but is not detected in heart, testis or brain. TIG3, which is activated by tazarotene, belongs to the H-rev107 family of proteins. TIG3 acts as a growth regulator and is important for mediating the growth suppressive effects of retinoids.

REFERENCES

1. DiSepio, D., et al. 1998. Identification and characterization of a retinoid-induced class II tumor suppressor/growth regulatory gene. Proc. Natl. Acad. Sci. USA 95: 14811-148115.
2. Youssef, E.M., et al. 2004. Hypermethylation and silencing of the putative tumor suppressor Tazarotene-induced gene 1 in human cancers. Cancer Res. 64: 2411-2417.
3. Tokumaru, Y., et al. 2004. Optimal use of a panel of methylation markers with GSTP1 hypermethylation in the diagnosis of prostate adenocarcinoma. Clin. Cancer Res. 10: 5518-5522.

CHROMOSOMAL LOCATION

Genetic locus: RARRES1 (human) mapping to 3q25.32; Rarres1 (mouse) mapping to 3 E1.

SOURCE

TIG1 (G-2) is a mouse monoclonal antibody raised against amino acids 44-224 mapping within a C-terminal extracellular domain of TIG1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TIG1 (G-2) is available conjugated to agarose (sc-390461 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390461 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390461 PE), fluorescein (sc-390461 FITC), Alexa Fluor® 488 (sc-390461 AF488), Alexa Fluor® 546 (sc-390461 AF546), Alexa Fluor® 594 (sc-390461 AF594) or Alexa Fluor® 647 (sc-390461 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390461 AF680) or Alexa Fluor® 790 (sc-390461 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

TIG1 (G-2) is recommended for detection of TIG1 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 TIG1 siRNA (h): sc-61686, TIG1 siRNA (m): sc-61687, TIG1 shRNA Plasmid (h): sc-61686-SH, TIG1 shRNA Plasmid (m): sc-61687-SH, TIG1 shRNA (h) Lentiviral Particles: sc-61686-V and TIG1 shRNA (m) Lentiviral Particles: sc-61687-V.

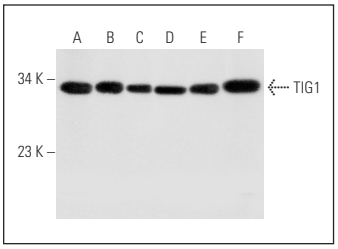
Molecular Weight of TIG1: 33 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Hep G2 cell lysate: sc-2227 or NIH/3T3 whole cell lysate: sc-2210.

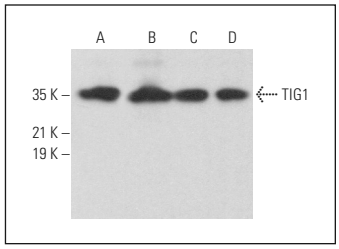
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



TIG1 (G-2): sc-390461. Western blot analysis of TIG1 expression in rat liver tissue extract (**A**) and HeLa (**B**), HEK293 (**C**), Hep G2 (**D**), CCRF-CEM (**E**) and A549 (**F**) whole cell lysates.



TIG1 (G-2): sc-390461. Western blot analysis of TIG1 expression in Caki-1 (**A**), c4 (**B**), NIH/3T3 (**C**) and PC-12 (**D**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Chen, A., et al. 2020. Soluble RARRES1 induces podocyte apoptosis to promote glomerular disease progression. J. Clin. Invest. 130: 5523-5535.

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.