# SANTA CRUZ BIOTECHNOLOGY, INC.

# ITFG1 (T-17): sc-243116



The Power to Question

## BACKGROUND

Integrins are heterodimers composed of noncovalently associated transmembrane  $\alpha$  and  $\beta$  subunits. The 16  $\alpha$  and 8  $\beta$  subunits heterodimerize to produce more than 20 different receptors. Most integrin receptors bind ligands that are components of the extracellular matrix, including fibronectin, collagen (COL) and vitronectin. Certain integrins can also bind to soluble ligands such as fibrinogen, or to counter-receptors on adjacent cells such as the intracellular adhesion molecules (ICAMs), leading to aggregation of cells. Ligands serve to cross-link or cluster integrins by binding to adjacent integrin receptors; both receptor clustering and ligand occupancy are necessary for the activation of integrin-mediated responses. In addition to mediating cell adhesion and cytoskeletal organization, integrins function as signaling receptors. Signals transduced by integrins play a role in many biological processes, including cell growth, differentiation, migration and apoptosis. ITFG1 (integrin- $\alpha$  FG-GAP repeat-containing protein 1), also known as TIP (T-cell immunomodulatory protein), is a 612 amino acid secreted protein that contains one FG-GAP repeat.

# REFERENCES

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- Miyamoto, S., Akiyama, S.K. and Yamada, K.M. 1995. Synergistic roles for receptor occupancy and aggregation in integrin transmembrane function. Science 267: 883-885.
- Clark, E.A. and Brugge, J.S. 1995. Integrins and signal transduction pathways: the road taken. Science 268: 233-239.
- 4. Sheppard, D. 1996. Epithelial integrins. Bioessays 18: 655-660.
- Fiscella, M., Perry, J.W., Teng, B., Bloom, M., Zhang, C., Leung, K., Pukac, L., Liu, B., Meng, Y., Chen, C., Elgin, E.C., Porter, J., Cibotti, R., Mei, Y., Zhou, J., Chen, G., Mansfield, B., Ruben, S., Sanyal, I. and Migone, T.S. 2003. TIP, a T-cell factor identified using high-throughput screening increases survival in a graft-versus-host disease model. Nat. Biotechnol. 21: 302-307.
- McConnell, J.L., Gomez, R.J., McCorvey, L.R., Law, B.K. and Wadzinski, B.E. 2007. Identification of a PP2A-interacting protein that functions as a negative regulator of phosphatase activity in the ATM/ATR signaling pathway. Oncogene 26: 6021-6030.

# CHROMOSOMAL LOCATION

Genetic locus: ITFG1 (human) mapping to 16q12.1; Itfg1 (mouse) mapping to 8 C3.

#### SOURCE

ITFG1 (T-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ITFG1 of human origin.

## PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-243116 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### APPLICATIONS

ITFG1 (T-17) is recommended for detection of ITFG1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with ITFG2 or ITFG3.

ITFG1 (T-17) is also recommended for detection of ITFG1 in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for ITFG1 siRNA (h): sc-93373, ITFG1 siRNA (m): sc-146306, ITFG1 shRNA Plasmid (h): sc-93373-SH, ITFG1 shRNA Plasmid (m): sc-146306-SH, ITFG1 shRNA (h) Lentiviral Particles: sc-93373-V and ITFG1 shRNA (m) Lentiviral Particles: sc-146306-V.

Molecular Weight of ITFG1: 68 kDa.

## **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) Immunofluo-rescence: 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.

#### **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.

## PROTOCOLS

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