

# ITFG2 (F-11): sc-271420

## 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. ITFG2 (integrin- $\alpha$  FG-GAP repeat-containing protein 2) is a 447 amino acid protein that contains two FG-GAP repeats, a motif commonly found in integrin proteins.

## REFERENCES

1. Hynes, R.O. 1992. Integrins: versatility, modulation and signaling in cell adhesion. *Cell* 69: 11-25.
2. Miyamoto, S., et al. 1995. Synergistic roles for receptor occupancy and aggregation in integrin transmembrane function. *Science* 267: 883-885.
3. Clark, E.A. and Brugge, J.S. 1995. Integrins and signal transduction pathways: the road taken. *Science* 268: 233-239.

## CHROMOSOMAL LOCATION

Genetic locus: ITFG2 (human) mapping to 12p13.33; Itfg2 (mouse) mapping to 6 F3.

## SOURCE

ITFG2 (F-11) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of ITFG2 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

ITFG2 (F-11) is available conjugated to agarose (sc-271420 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271420 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271420 PE), fluorescein (sc-271420 FITC), Alexa Fluor® 488 (sc-271420 AF488), Alexa Fluor® 546 (sc-271420 AF546), Alexa Fluor® 594 (sc-271420 AF594) or Alexa Fluor® 647 (sc-271420 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271420 AF680) or Alexa Fluor® 790 (sc-271420 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## STORAGE

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

## APPLICATIONS

ITFG2 (F-11) is recommended for detection of ITFG2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

Suitable for use as control antibody for ITFG2 siRNA (h): sc-95815, ITFG2 siRNA (m): sc-146307, ITFG2 shRNA Plasmid (h): sc-95815-SH, ITFG2 siRNA (m): sc-146307-SH, ITFG2 shRNA (h) Lentiviral Particles: sc-95815-V and ITFG2 siRNA (m): sc-146307-V.

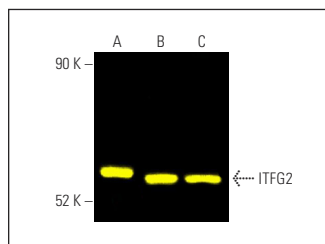
Molecular Weight of ITFG2: 49 kDa.

Positive Controls: MOLT-4 cell lysate: sc-2233, Jurkat whole cell lysate: sc-2204 or U-698-M whole cell lysate: sc-364799.

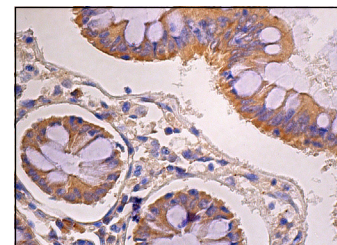
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG $\kappa$  BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



ITFG2 (F-11) Alexa Fluor® 488: sc-271420 AF488. Direct fluorescent western blot analysis of ITFG2 expression in Jurkat (A), MOLT-4 (B) and U-698-M (C) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214.



ITFG2 (F-11): sc-271420. Immunoperoxidase staining of formalin fixed, paraffin-embedded human colon tissue showing cytoplasmic staining of glandular cells.

## SELECT PRODUCT CITATIONS

1. Bi, F.F., et al. 2024. ITFG2, an immune-modulatory protein, targets ATP 5b to maintain mitochondrial function in myocardial infarction. *Biochem. Pharmacol.* 226: 116338.

## RESEARCH USE

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