

Integrin α 11 (F-5): sc-390091

BACKGROUND

Integrins are heterodimers composed of noncovalently associated transmembrane α and β subunits, which 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 counterreceptors on adjacent cells, such as the intracellular adhesion molecules (ICAMs), leading to cellular aggregation. Integrin α 11, also known as ITGA11 or MSTP018, is a 1,189 amino acid single-pass type I membrane protein that contains one VWFA domain and seven FG-GAP repeats. Expressed at high levels in heart and uterus and present at lower levels in pancreas, kidney, skeletal muscle, placenta, lung, colon and brain, Integrin α 11 exists as a heterodimer with Integrin β 1 and functions as a receptor for collagen.

REFERENCES

- Lehnert, K., et al. 1999. Cloning, sequence analysis, and chromosomal localization of the novel human Integrin α 11 subunit (ITGA11). *Genomics* 60: 179-187.
- Velling, T., et al. 1999. cDNA cloning and chromosomal localization of human α 11 Integrin. A collagen-binding, I domain-containing, β 1-associated Integrin α -chain present in muscle tissues. *J. Biol. Chem.* 274: 25735-25742.
- Online Mendelian Inheritance in Man, OMIM™. 2000. Johns Hopkins University, Baltimore, MD. MIM Number: 604789. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Tiger, C.F., et al. 2001. α 11 β 1 Integrin is a receptor for interstitial collagens involved in cell migration and collagen reorganization on mesenchymal nonmuscle cells. *Dev. Biol.* 237: 116-129.
- Zhang, W.M., et al. 2002. Analysis of the human Integrin α 11 gene (ITGA11) and its promoter. *Matrix Biol.* 21: 513-523.

CHROMOSOMAL LOCATION

Genetic locus: ITGA11 (human) mapping to 15q23.

SOURCE

Integrin α 11 (F-5) is a mouse monoclonal antibody raised against amino acids 913-1151 mapping within an internal region of Integrin α 11 of human origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Integrin α 11 (F-5) is available conjugated to agarose (sc-390091 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390091 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390091 PE), fluorescein (sc-390091 FITC), Alexa Fluor® 488 (sc-390091 AF488), Alexa Fluor® 546 (sc-390091 AF546), Alexa Fluor® 594 (sc-390091 AF594) or Alexa Fluor® 647 (sc-390091 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390091 AF680) or Alexa Fluor® 790 (sc-390091 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

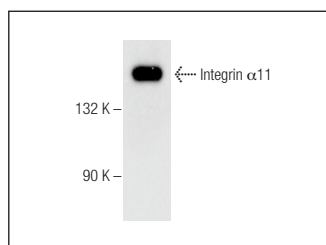
Integrin α 11 (F-5) is recommended for detection of Integrin α 11 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 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 Integrin α 11 siRNA (h): sc-90047, Integrin α 11 shRNA Plasmid (h): sc-90047-SH and Integrin α 11 shRNA (h) Lentiviral Particles: sc-90047-V.

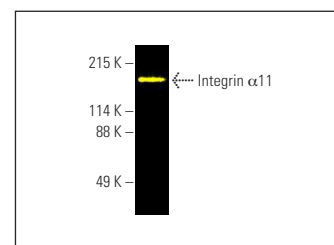
Molecular Weight of Integrin α 11: 145 kDa.

Positive Controls: human uterus extract: sc-363784 and BJ whole cell lysate: sc-364359.

DATA



Integrin α 11 (F-5): sc-390091. Western blot analysis of Integrin α 11 expression in human uterus tissue extract.



Integrin α 11 (F-5) Alexa Fluor® 488: sc-390091 AF488. Direct fluorescent western blot analysis of Integrin α 11 expression in BJ whole cell lysate. Blocked with UltraCruz® Blocking Reagent: sc-516214.

SELECT PRODUCT CITATIONS

- Westcott, J.M., et al. 2015. An epigenetically distinct breast cancer cell subpopulation promotes collective invasion. *J. Clin. Invest.* 125: 1927-1943.
- Mun, S., et al. 2022. Transcriptome profile of membrane and extracellular matrix components in ligament-fibroblastic progenitors and cementoblasts differentiated from human periodontal ligament cells. *Genes* 13: 659.
- Ha, M.Y., et al. 2023. *In-situ* forming injectable GFOGER-conjugated BMSCs-laden hydrogels for osteochondral regeneration. *NPJ Regen. Med.* 8: 2.

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 for detailed protocols and support products.

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