Integrin α3 (A-3): sc-374242

BACKGROUND

Integrins are heterodimers composed of non-covalently associated transmembrane α and β subunits. The 16 α and 8 β subunits heterodimerize to produce more than 20 different receptors. Most integrin receptors bind ligands that are components of the extracellular matrix, including Fibronectin, collagen 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 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. The Integrin α3 chain, also known as very late (activation) antigen 3 (VLA-3), very common antigen 2 (VCA-2), extracellular matrix receptor 1 (ECMR1) and galactoprotein b3 (GAPB3), undergoes posttranslational cleavage in the extracellular domain to yield disulfide-linked light and heavy chains that join with β1 to form an integrin that interacts with many extracellular-matrix proteins.

CHROMOSOMAL LOCATION

Genetic locus: ITGA3 (human) mapping to 17q21.33; Itga3 (mouse) mapping to 11 D.

SOURCE

Integrin α3 (A-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1029-1051 at the C-terminus of Integrin α3 of human origin.

PRODUCT

Each vial contains 200 µg IgG2a kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Integrin α3 (A-3) is available conjugated to agarose (sc-374242 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374242 HRP), 200 µg/ml, for WB, IHC) and ELISA; to either phycoerythrin (sc-374242 PE), fluorescein (sc-374242 FITC), Alexa Fluor® 488 (sc-374242 AF488), Alexa Fluor® 546 (sc-374242 AF546), Alexa Fluor® 594 (sc-374242 AF594) or Alexa Fluor® 647 (sc-374242 AF647), 200 µg/ml, for WB (RGB), IF, IHC (CFM) and FCM; and to either Alexa Fluor® 680 (sc-374242 AF680) or Alexa Fluor® 790 (sc-374242 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-374242 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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 for detailed protocols and support products.

APPLICATIONS

Integrin α3 (A-3) is recommended for detection of Integrin α3 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), 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 Integrin α3 siRNA (h): sc-35684, Integrin α3 siRNA (m): sc-37120, Integrin α3 shRNA Plasmid (h): sc-35684-SH, Integrin α3 shRNA Plasmid (m): sc-37120-SH, Integrin α3 shRNA (h) Lentiviral Particles: sc-35684-V and Integrin α3 shRNA (m) Lentiviral Particles: sc-37120-V.

Molecular Weight of Integrin α3: 150 kDa.

Positive Controls: A549 cell lysate: sc-2413, A-431 whole cell lysate: sc-2201 or U-87 MG cell lysate: sc-2411.

DATA

SELECT PRODUCT CITATIONS


RESEARCH USE

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

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