

Integrin $\alpha 3$ (Ralph 3.2): sc-7019

BACKGROUND

Integrins are heterodimers composed of noncovalently 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 $\alpha 3$ chain, also known as very late (activation) antigen 3 (VLA-3), very common antigen 2 (VCA-2), extracellular matrix receptor 1 (ECMR1) and galactoprotein $\beta 3$ (GAPB3), undergoes posttranslational cleavage in the extracellular domain to yield disulfide-linked light and heavy chains that join with $\beta 1$ to form an integrin that interacts with many extracellular-matrix proteins.

CHROMOSOMAL LOCATION

Genetic locus: Itga3 (mouse) mapping to 11 D.

SOURCE

Integrin $\alpha 3$ (Ralph 3.2) is a mouse monoclonal antibody within an extracellular domain.

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 $\alpha 3$ (Ralph 3.2) is available conjugated to agarose (sc-7019 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-7019 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-7019 PE), fluorescein (sc-7019 FITC), Alexa Fluor[®] 488 (sc-7019 AF488), Alexa Fluor[®] 546 (sc-7019 AF546), Alexa Fluor[®] 594 (sc-7019 AF594) or Alexa Fluor[®] 647 (sc-7019 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-7019 AF680) or Alexa Fluor[®] 790 (sc-7019 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

Integrin $\alpha 3$ (Ralph 3.2) is recommended for detection of Integrin $\alpha 3$ of rat and, to a lesser extent, mouse origin by 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 flow cytometry (1 μ g per 1 x 10⁶ cells).

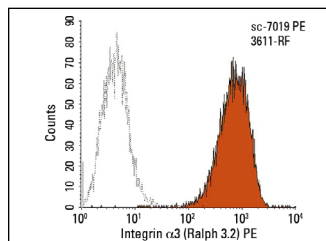
Suitable for use as control antibody for Integrin $\alpha 3$ siRNA (m): sc-37120, Integrin $\alpha 3$ shRNA Plasmid (m): sc-37120-SH and Integrin $\alpha 3$ shRNA (m) Lentiviral Particles: sc-37120-V.

Molecular Weight of Integrin $\alpha 3$: 150 kDa.

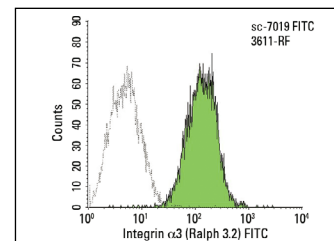
STORAGE

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

DATA



Integrin $\alpha 3$ (Ralph 3.2) FITC: sc-7019 FITC. FCM analysis of 3611-RF cells. Black line histogram represents the isotype control, normal mouse IgG₁-FITC: sc-2855.



Integrin $\alpha 3$ (Ralph 3.2) FITC: sc-7019 FITC. FCM analysis of 3611-RF cells. Black line histogram represents the isotype control, normal mouse IgG₁-FITC: sc-2855.

SELECT PRODUCT CITATIONS

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- Brown, A.C., et al. 2011. Guiding epithelial cell phenotypes with engineered integrin-specific recombinant fibronectin fragments. *Tissue Eng. Part A* 17: 139-150.
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- Dong, Y., et al. 2018. Differential fates of tissue macrophages in the cochlea during postnatal development. *Hear. Res.* 365: 110-126.
- Remuzzi, A., et al. 2020. Role of ultrastructural determinants of glomerular permeability in ultrafiltration function loss. *JCI Insight* 5: e137249.

RESEARCH USE

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