SANTA CRUZ BIOTECHNOLOGY, INC.

Integrin α8 (F-11): sc-365798

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Integrins are heterodimers composed of noncovalently associated transmembrane α and β subunits. 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. Integrin α8 is expressed in contractile interstitial cells and smooth muscle cells and is upregulated in lung injury. Integrin α8 is also a marker for smooth muscle cells, expressed as early as α smooth muscle Actin. The Integrin α8 chain is expressed in the glomerulus exclusively by mesangial cells and may play an important role for maintaining tissue integrity in the glomerulus during glomerular injury.

CHROMOSOMAL LOCATION

Genetic locus: ITGA8 (human) mapping to 10p13; Itga8 (mouse) mapping to 2 A1.

SOURCE

Integrin α8 (F-11) is a mouse monoclonal antibody raised against amino acids 791-970 of Integrin α8 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Integrin α8 (F-11) is available conjugated to agarose (sc-365798 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-365798 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365798 PE), fluorescein (sc-365798 FITC), Alexa Fluor® 488 (sc-365798 AF488), Alexa Fluor® 546 (sc-365798 AF546), Alexa Fluor® 594 (sc-365798 AF594) or Alexa Fluor® 647 (sc-365798 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365798 AF680) or Alexa Fluor® 790 (sc-365798 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Integrin α8 (F-11) is recommended for detection of Integrin α8 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). Integrin α8 (F-11) is also recommended for detection of Integrin α8 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Integrin α8 siRNA (h): sc-35688, Integrin α8 siRNA (m): sc-35689, Integrin α8 shRNA Plasmid (h): sc-35688-SH, Integrin α8 shRNA Plasmid (m): sc-35689-SH, Integrin α8 shRNA (h) Lentiviral Particles: sc-35688-V and Integrin α8 shRNA (m) Lentiviral Particles: sc-35689-V.

Molecular Weight of nonreduced Integrin α8: 180 kDa.

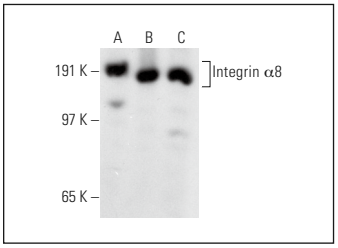
Molecular Weight of reduced Integrin α8: 155/25 kDa.

Positive Controls: Ramos cell lysate: sc-2216, NAMALWA cell lysate: sc-2234 or AMJ2-C8 whole cell lysate: sc-364366.

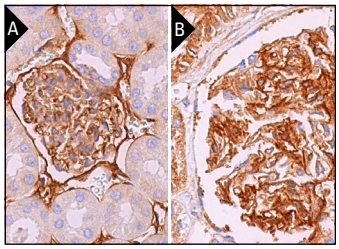
STORAGE

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

DATA



Integrin α8 (F-11): sc-365798. Western blot analysis of Integrin α8 expression in Ramos (**A**), NAMALWA (**B**) and AMJ2-C8 (**C**) whole cell lysates.



Integrin α8 (F-11): sc-365798. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse kidney tissue showing membrane and cytoplasmic staining of cells in glomeruli and edothelial cells (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing membrane and cytoplasmic staining of cells in glomeruli and cytoplasmic staining of cells in tubules (**B**).

SELECT PRODUCT CITATIONS

1. Xie, Y. and Perrino, B.A. 2019. Quantitative *in situ* proximity ligation assays examining protein interactions and phosphorylation during smooth muscle contractions. Anal. Biochem. 577: 1-13.
2. He, L., et al. 2021. Smooth muscle cell-specific knockout of interferon γ (IFN-γ) receptor attenuates intimal hyperplasia via STAT1-KLF4 activation. Life Sci. E-published.
3. 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.
4. Wang, R.X., et al. 2022. Renal expression of annexin A1 is associated with the severity of renal injury in antineutrophil cytoplasmic autoantibody-associated vasculitis. Front. Med. 9: 769813.
5. Nagai, Y., et al. 2022. Rho-associated, coiled-coil-containing protein kinase 1 regulates development of diabetic kidney disease via modulation of fatty acid metabolism. Kidney Int. 102: 536-545.
6. Wang, Y.H., et al. 2022. Glutathione peroxidase 4 is a predictor of diabetic kidney disease progression in type 2 diabetes mellitus. Oxid. Med. Cell. Longev. 2022: 2948248.
7. Chen, F.F., et al. 2023. Renal NLRP3 Inflammasome activation is associated with disease activity in lupus nephritis. Clin. Immunol. 247: 109221.
8. Xu, H., et al. 2024. hUC-MSCs-derived MFGE8 ameliorates locomotor dysfunction via inhibition of ITGB3/NFκB signaling in an NMO mouse model. NPJ Regen. Med. 9: 4.

RESEARCH USE

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