SANTA CRUZ BIOTECHNOLOGY, INC.

Integrin αV (P2W7): sc-9969

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.

CHROMOSOMAL LOCATION

Genetic locus: ITGAV (human) mapping to 2q32.1.

SOURCE

Integrin αV (P2W7) is a mouse monoclonal antibody raised against full length Integrin αV of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Integrin αV (P2W7) is available conjugated to agarose (sc-9969 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-9969 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-9969 PE), fluorescein (sc-9969 FITC), Alexa Fluor® 488 (sc-9969 AF488), Alexa Fluor® 546 (sc-9969 AF546), Alexa Fluor® 594 (sc-9969 AF594) or Alexa Fluor® 647 (sc-9969 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-9969 AF680) or Alexa Fluor® 790 (sc-9969 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Integrin αV (P2W7) is recommended for detection of Integrin αV of human origin by Western Blotting (starting dilution 1:200, 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), flow cytometry (1 µg per 1 x 10^6 cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Integrin αV siRNA (h): sc-29373, Integrin αV shRNA Plasmid (h): sc-29373-SH and Integrin αV shRNA (h) Lentiviral Particles: sc-29373-V.

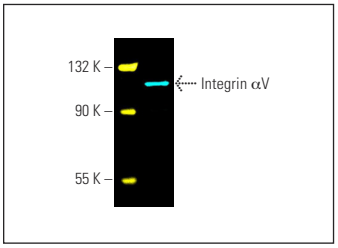
Molecular Weight of Integrin αV: 125-135 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, BT-20 cell lysate: sc-2223 or MDA-MB-231 cell lysate: sc-2232.

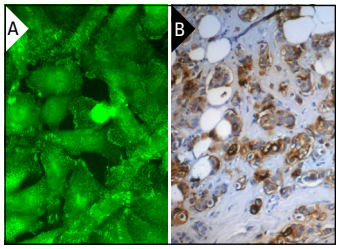
STORAGE

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

DATA



Integrin αV (P2W7) Alexa Fluor® 647: sc-9969 AF647. Direct fluorescent western blot analysis of Integrin αV expression in HeLa whole cell lysate. Blocked with UltraCruz® Blocking Reagent: sc-516214. Cruz Marker™ Molecular Weight Standards detected with Cruz Marker MW Tag-Alexa Fluor® 488: sc-516790.



Integrin αV (P2W7) Alexa Fluor® 488: sc-9969 AF488. Direct immunofluorescence staining of formalin-fixed SW480 cells showing membrane and focal adhesions localization. Blocked with UltraCruz® Blocking Reagent: sc-516214 (**A**). Integrin αV (P2W7): sc-9969. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast tumor showing membrane staining (**B**).

SELECT PRODUCT CITATIONS

1. Davidson, B., et al. 2003. αV- and β1-integrin subunits are commonly expressed in malignant effusions from ovarian carcinoma patients. Gynecol. Oncol. 90: 248-257.
2. Mori, S., et al. 2015. Enhanced expression of Integrin αvβ3 induced by TGF-β is required for the enhancing effect of fibroblast growth factor 1 (FGF1) in TGF-β-induced epithelial-mesenchymal transition (EMT) in mammary epithelial cells. PLoS ONE 10: e0137486.
3. Shinderman-Maman, E., et al. 2016. The thyroid hormone-αvβ3 integrin axis in ovarian cancer: regulation of gene transcription and MAPK-dependent proliferation. Oncogene 35: 1977-1987.
4. Murase, H., et al. 2017. Progranulin increases phagocytosis by retinal pigment epithelial cells in culture. J. Neurosci. Res. 95: 2500-2510.
5. Sui, X., et al. 2018. p53-dependent CD51 expression contributes to characteristics of cancer stem cells in prostate cancer. Cell Death Dis. 9: 523.
6. Leclerc, J., et al. 2019. Lysosomal acid ceramidase ASAH1 controls the transition between invasive and proliferative phenotype in melanoma cells. Oncogene 38: 1282-1295.
7. D'Agostino, A., et al. 2020. Molecular mechanisms at the basis of pharmaceutical grade triticum vulgare extract efficacy in prompting keratinocytes healing. Molecules 25: 431.
8. de Filippis, A., et al. 2021. Q-switched Nd-YAG laser alone and in combination with innovative hyaluronic acid gels improve keratinocytes wound healing *in vitro*. Lasers Med. Sci. 36: 1047-1057.

RESEARCH USE

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