

Integrin $\beta 8$ (G-17): sc-10817

BACKGROUND

Integrins are heterodimers composed of noncovalently associated transmembrane α and β subunits. The 16α and 8β 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: ITGB8 (human) mapping to 7p21.1.

SOURCE

Integrin $\beta 8$ (G-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Integrin $\beta 8$ of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-10817 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

Integrin $\beta 8$ (G-17) is recommended for detection of Integrin $\beta 8$ of human origin by Western Blotting (starting dilution 1:200, 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), 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 $\beta 8$ (G-17) is also recommended for detection of Integrin $\beta 8$ in additional species, including equine, canine and porcine.

Suitable for use as control antibody for Integrin $\beta 8$ siRNA (h): sc-43137, Integrin $\beta 8$ shRNA Plasmid (h): sc-43137-SH and Integrin $\beta 8$ shRNA (h) Lentiviral Particles: sc-43137-V.

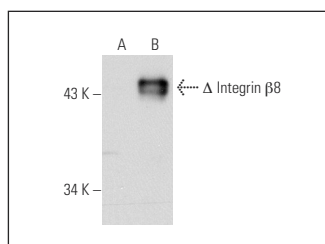
Molecular Weight of Integrin $\beta 8$: 97 kDa.

Positive Controls: Integrin $\beta 8$ (h): 293T Lysate: sc-158641.

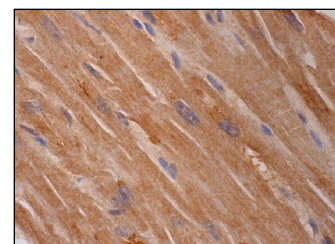
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



Integrin $\beta 8$ (G-17): sc-10817. Western blot analysis of Integrin $\beta 8$ expression in non-transfected: sc-117752 (A) and truncated human Integrin $\beta 8$ transfected: sc-158641 (B) 293T whole cell lysates.



Integrin $\beta 8$ (G-17): sc-10817. Immunoperoxidase staining of formalin fixed, paraffin-embedded human heart muscle tissue showing cytoplasmic staining of myocytes.

SELECT PRODUCT CITATIONS

- Cambier, S., et al. 2005. Integrin $\alpha(v)\beta 8$ -mediated activation of transforming growth factor- β by perivascular astrocytes: an angiogenic control switch. *Am. J. Pathol.* 166: 1883-1894.
- Stepp, M.A., et al. 2007. Reduced migration, altered matrix and enhanced TGF $\beta 1$ signaling are signatures of mouse keratinocytes lacking Sdc1. *J. Cell Sci.* 120: 2851-2863.
- Hsiao, J.R., et al. 2010. Cyclic $\alpha v\beta 6$ -targeting peptide selected from biopanning with clinical potential for head and neck squamous cell carcinoma. *Head Neck* 32: 160-172.
- Leppäranta, O., et al. 2012. Regulation of TGF- β storage and activation in the human idiopathic pulmonary fibrosis lung. *Cell Tissue Res.* 348: 491-503.

RESEARCH USE

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



Try **Integrin $\beta 8$ (E-6): sc-514150**, our highly recommended monoclonal alternative to Integrin $\beta 8$ (G-17).