

Laminin α -4 (V-20): sc-16590

BACKGROUND

Laminins are essential and abundant structural non-collagenous glycoproteins localizing to basement membranes. Basement membranes (cell-associated extracellular matrices (ECMs)) are polymers of laminins with stabilizing type IV collagen networks, nidogen and several proteoglycans. Basement membranes are found under epithelial layers, around the endothelium of blood vessels, and surrounding muscle, peripheral nerve and fat cells. Formation of basement membranes influences cell proliferation, phenotype, migration, gene expression and tissue architecture. Each laminin is a heterotrimer of α , β and γ chain subunits that undergoes cell-secretion and incorporation into the ECM. Laminins can self-assemble, bind to other matrix macromolecules, and have unique and shared cell interactions mediated by Integrins, dystroglycan and cognate laminin receptors. The human Laminin α -4 gene maps to chromosome 6q21 and is expressed in adult heart, lung, ovary, small and large intestines, liver and placenta.

CHROMOSOMAL LOCATION

Genetic locus: LAMA4 (human) mapping to 6q21; Lama4 (mouse) mapping to 10 B1.

SOURCE

Laminin α -4 (V-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Laminin α -4 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-16590 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Laminin α -4 (V-20) is recommended for detection of Laminin α -4 of mouse, rat and 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).

Laminin α -4 (V-20) is also recommended for detection of Laminin α -4 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Laminin α -4 siRNA (h): sc-43147, Laminin α -4 siRNA (m): sc-43148, Laminin α -4 shRNA Plasmid (h): sc-43147-SH, Laminin α -4 shRNA Plasmid (m): sc-43148-SH, Laminin α -4 shRNA (h) Lentiviral Particles: sc-43147-V and Laminin α -4 shRNA (m) Lentiviral Particles: sc-43148-V.

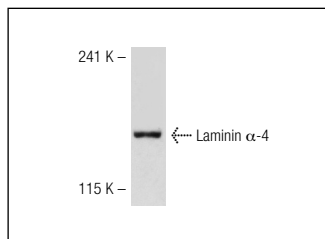
Molecular Weight: of Laminin α -4: 227 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

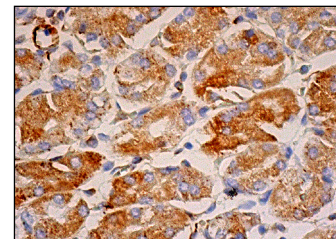
STORAGE

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

DATA



Laminin α -4 (V-20): sc-16590. Western blot analysis of Laminin α -4 expression in HeLa whole cell lysate.



Laminin α -4 (V-20): sc-16590. Immunoperoxidase staining of formalin fixed, paraffin-embedded human stomach tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

- Kim, I.M., et al. 2005. The forkhead box m1 transcription factor is essential for embryonic development of pulmonary vasculature. *J. Biol. Chem.* 280: 22278-22286.
- Ramakrishna, S., et al. 2007. Myocardium defects and ventricular hypoplasia in mice homozygous null for the Forkhead Box M1 transcription factor. *Dev. Dyn.* 236: 1000-1013.
- Saito, N., et al. 2009. Laminin-421 produced by lymphatic endothelial cells induces chemotaxis for human melanoma cells. *Pigment Cell Melanoma Res.* 22: 601-610.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **Laminin α -4 (6C3): sc-130541**, our highly recommended monoclonal alternative to Laminin α -4 (V-20).