

Laminin α -3 (H-187): sc-20143

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, 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 -3 gene maps to chromosome 18q11.2 and encodes the α subunit of Laminin-5, which influences cell adhesion, signal transduction and differentiation of keratinocytes.

CHROMOSOMAL LOCATION

Genetic locus: LAMA3 (human) mapping to 18q11.2; Lama3 (mouse) mapping to 18 A1.

SOURCE

Laminin α -3 (H-187) is a rabbit polyclonal antibody raised against amino acids 3034-3220 mapping near the C-terminus of Laminin α -3 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.

STORAGE

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

APPLICATIONS

Laminin α -3 (H-187) is recommended for detection of Laminin α -3 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 -3 (H-187) is also recommended for detection of Laminin α -3 in additional species, including porcine.

Suitable for use as control antibody for Laminin α -3 siRNA (h): sc-43145, Laminin α -3 siRNA (m): sc-43146, Laminin α -3 shRNA Plasmid (h): sc-43145-SH, Laminin α -3 shRNA Plasmid (m): sc-43146-SH, Laminin α -3 shRNA (h) Lentiviral Particles: sc-43145-V and Laminin α -3 shRNA (m) Lentiviral Particles: sc-43146-V.

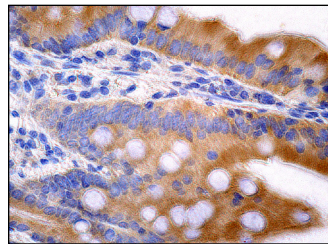
Molecular Weight of Laminin α -3: 200 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or NIH/3T3 whole cell lysate: sc-2210.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



Laminin α -3 (H-187): sc-20143. Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

- Zapatka, M., et al. 2007. Basement membrane component Laminin-5 is a target of the tumor suppressor Smad4. *Oncogene* 26: 1417-1427.
- Pinto, L.C., et al. 2010. Proliferative, structural and molecular features of the Mdx mouse prostate. *Int. J. Exp. Pathol.* 91: 408-419.
- Favaro, W.J., et al. 2012. Periacinar retraction clefting in nonneoplastic and neoplastic prostatic glands: artifact or molecular involvement. *Pathol. Oncol. Res.* 18: 285-292.
- Hetzl, A.C., et al. 2012. Steroid hormone receptors, matrix metalloproteinases, Insulin-like growth factor, and dystroglycans interactions in prostatic diseases in the elderly men. *Microsc. Res. Tech.* 75: 1197-1205.

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.