Laminin 111 Rabbit Polyclonal Antibody

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<th>Molecular Wt.</th>
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<td>WB, IF/ICC, IHC</td>
<td>Rabbit</td>
<td>IgG</td>
<td>440kDa, 220kDa, 158kDa</td>
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**Western blot analysis of different tissue lysates using rabbit pAb to laminin, RPCA-Laminin, dilution 1:5,000 in green:** [Image 158x490 to 372x696]

**Immunohistological analysis of brain stem section stained with rabbit pAb to laminin, RPCA-Laminin, dilution 1:1,000 in red, and stained with chicken pAb to myelin basic protein (MBP), CPCALaminin, dilution 1:5,000 in green.** [Image 376x490 to 582x696]

**Abbreviation Key:**

mAb—Monoclonal Antibody  pAb—Polyclonal Antibody  WB—Western Blot  IF—Immunofluorescence  ICC—Immunocytochemistry  IHC—Immunohistochemistry  ELISA—Enzyme-linked Immunosorbent Assay  Poretti Boltshauser Syndrome

**References:**


**Background:**

Laminins are high-molecular weight proteins and major components of the extracellular matrix. They are an important part of the basal lamina a protein network typically separating cells and tissues of different embryonic origin. Laminin was first isolated biochemically from Engelbreth-Holm-Swarm (EHS) mouse sarcoma cells, a cell line which produces large amounts of extracellular matrix material (1,2). Laminins are heterotrimeric proteins that contain one of five α-chains, one of three β-chains and one of three γ-chains (3-4). The EHS sarcoma cell derived laminin was originally named laminin-1, composed of α1β1γ1 polypeptides (5), though a later nomenclature named this form laminin 111, the numbers indicating the content of α, β and γ gene products (6). The distribution of the different laminin isoforms is developmental time and tissue-specific and laminin-111 expressed in the embryonic epithelium, but is also expressed in adult kidney, liver, testis, ovaries and brain blood vessels (7). Genetic ablation of laminin-111 results in embryonic death (8), and point mutations in the human α1 gene resulted in Poretti Boltshauser Syndrome, a rare disorder associated with cerebellar abnormalities, ataxia, cognitive problems and other issues. Injection of laminin-111 into muscle appeared to be a promising therapy in a mouse model Duchenne muscular dystrophy (DMD, 9). However transgenic overexpression of the laminin α1 protein appeared to have no beneficial affect also in a mouse DMD model (10).

The RPCA-Laminin antibody was made against laminin isolated biochemically from mouse Engelbreth-Holm-Swarm (EHS) sarcoma cells (1,2). The antibody recognizes the several different laminin polypeptides on western blots and is a very useful reagent for visualizing basal lamina in mature and developing tissues. It is particularly useful in the CNS, allowing visualization of the basal lamina of endothelia, an important part of the blood brain barrier.

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Abbreviation Key: