

**DESCRIPTION**

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human Laminin $\alpha$ 4 in ELISAs. In direct ELISAs, no cross-reactivity with recombinant mouse Laminin alpha 4 or recombinant human Laminin alpha 3 is observed.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 839084
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Chinese hamster ovary cell line CHO-derived recombinant human Laminin $\alpha$ 4 Arg826-Ser1816 Accession # Q16363
<b>Formulation</b>	Lyophilized from a 0.2 $\mu$ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 $\mu$ m filtered solution in PBS.

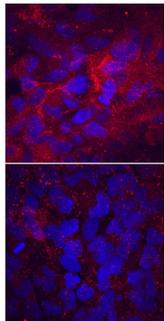
**APPLICATIONS**

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Immunocytochemistry</b>	8-25 $\mu$ g/mL	See Below

**DATA**

**Immunocytochemistry**



**Laminin  $\alpha$ 4 in T98G Human Cell Line.** Laminin  $\alpha$ 4 was detected in immersion fixed T98G human glioblastoma cells cultured with (upper panel) or without (lower panel) StemXVivo EMT Inducing Media Supplement (Catalog # CCM017) using Mouse Anti-Human Laminin  $\alpha$ 4 Monoclonal Antibody (Catalog # MAB7340) at 10  $\mu$ g/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.5 mg/mL.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**BACKGROUND**

Laminin  $\alpha$ 4 (LAMA-4 [Laminin subunit alpha 4]; also Laminin-14/423, -8/411 and -9/421 subunit alpha) is a 180-230 kDa secreted member of the laminin family of molecules. It is found in the basement membranes of adipocytes, endothelial cells, cardiac and visceral smooth muscle cells, fibroblasts, keratinocytes, and pancreatic acinar cells. Laminin is a heterotrimeric glycoprotein that attaches cells to basement membranes. It is composed of covalently-linked  $\alpha$ -,  $\beta$ - and  $\gamma$ -chains, and is known to attach cells to basement membranes. In the case of the  $\alpha$ -subunit, this is mediated through binding to multiple integrins ( $\alpha$ 3 $\beta$ 1,  $\alpha$ v $\beta$ 3 and  $\alpha$ 6 $\beta$ 1), plus dystroglycan and the syndecans-2 and -4. Mature human Laminin  $\alpha$ 4 is 1799 amino acids (aa) in length (aa 25-1823). It contains multiple domains, including four EGF-like domains (aa 82-255) and five Laminin G-like domains (aa 833-1820). There is a chondroitin sulfate attachment at the N-terminus that accounts for 20-30 kDa of MW. Laminin  $\alpha$ 4 is cleaved between the Laminin G-like 3 and 4 domains, creating a soluble 44 kDa fragment that possesses antibacterial activity. There are two potential splice variants, one that shows a deletion of aa 266-272, and another that contains a 55 aa substitution for aa 66-1823. Over aa 826-1816, human Laminin  $\alpha$ 4 shares 91% aa sequence identity with mouse Laminin  $\alpha$ 4.