**Human Laminin α3/Laminin-5 Antibody**
Monoclonal Mouse IgG1 Clone # 546215
Catalog Number: MAB21441

### DESCRIPTION

**Species Reactivity**  
Human

**Specificity**  
Detects human Laminin α3/Laminin-5 in direct ELISAs and Western blots. In direct ELISAs, no cross reactivity with recombinant human (rh) Laminin α1, β1, γ2, or recombinant mouse Laminin α4 is observed.

**Source**  
Monoclonal Mouse IgG1 Clone # 546215

**Purification**  
Protein A or G purified from hybridoma culture supernatant

**Immunogen**  
Chinese hamster ovary cell line CHO-derived recombinant human Laminin α3/Laminin-5 aa 21-1713

**Accession #**  
NP_000218

**Formulation**  
Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

*Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm 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.

<table>
<thead>
<tr>
<th>APPLICATIONS</th>
<th>Recommended Concentration</th>
<th>Sample</th>
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<tbody>
<tr>
<td><strong>Western Blot</strong></td>
<td>2 µg/mL</td>
<td>See Below</td>
</tr>
<tr>
<td><strong>Immunocytochemistry</strong></td>
<td>8-25 µg/mL</td>
<td>See Below</td>
</tr>
<tr>
<td><strong>Immunoprecipitation</strong></td>
<td>25 µg/mL</td>
<td>Conditioned cell culture medium spiked with Recombinant Human Laminin α3. See our available Western blot detection antibodies</td>
</tr>
<tr>
<td><strong>Intracellular Staining by Flow Cytometry</strong></td>
<td>0.25 µg/10⁶ cells</td>
<td>See Below</td>
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</tbody>
</table>

### DATA

**Western Blot**  
Detection of Human Laminin α3/Laminin-5 by Western Blot. Western blot shows lysates of human lung tissue. PVDF Membrane was probed with 2 µg/mL of Mouse Anti-Human Laminin α3/Laminin-5 Monoclonal Antibody (Catalog # MAB21441) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for Laminin α3/Laminin-5 at approximately 190 kDa (as indicated). This experiment was conducted under non-reducing conditions and using Immunoblot Buffer Group 1.

**Immunocytochemistry**  
Laminin α3/Laminin-5 in NHEK Human Cell Line. Laminin α3/Laminin-5 was detected in immersion fixed NHEK human normal epidermal keratinocytes treated with 10 ng/mL Recombinant Human TGF-beta 1 (Catalog # 240-B) for 24 hours using Mouse Anti-Human Laminin α3/Laminin-5 Monoclonal Antibody (Catalog # MAB21441) at 10 µg/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 the perinuclear space. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

**Intracellular Staining by Flow Cytometry**  
Detection of Laminin α3/Laminin-5 in U2OS Human Cell Line by Flow Cytometry. U2OS human osteosarcoma cell line was stained with Mouse Anti-Human Laminin α3/Laminin-5 Monoclonal Antibody (Catalog # MAB21441, filled histogram) or isotype control antibody (Catalog # MAB002, open histogram), followed by Allophycocyanin-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0101B). View our protocol for Staining Intracellular Molecules.
## PREPARATION AND STORAGE

<table>
<thead>
<tr>
<th>Preparatory Step</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td><strong>Reconstitution</strong></td>
<td>Reconstitute at 0.5 mg/mL in sterile PBS.</td>
</tr>
<tr>
<td><strong>Shipping</strong></td>
<td>The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. <em>Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stability &amp; Storage</th>
<th>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</th>
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</thead>
<tbody>
<tr>
<td>12 months from date of receipt</td>
<td>-20 to -70 °C as supplied.</td>
</tr>
<tr>
<td>1 month, 2 to 8 °C under sterile conditions after reconstitution.</td>
<td></td>
</tr>
<tr>
<td>6 months, -20 to -70 °C under sterile conditions after reconstitution.</td>
<td></td>
</tr>
</tbody>
</table>

## BACKGROUND

Laminins are heterotrimeric, noncollagenous glycoproteins composed of α, β, and γ chains. Through interactions with integrins, dystroglycan and other receptors, laminins contribute to cell differentiation, cell shape and migration, and maintenance of tissue phenotypes and survival. Laminin α3/Laminin-5, also known as epiligrin, includes α3, β3, and γ2 subunits. It is abundant in transitional epithelium, stratified squamous epithelia, lung mucosa and other epithelial glands and contributes to initiation and maintenance of epithelial cell anchorage to the underlying connective tissue. Within aa 21-1713 of the α3 subunit, human and mouse share 77% amino acid sequence identity.