

DESCRIPTION

| | |
|---------------------------|---|
| Species Reactivity | Human |
| Specificity | Detects human Laminin $\alpha 1$ in direct ELISAs. |
| Source | Monoclonal Mouse IgG _{2A} Clone # 775016 |
| Purification | Protein A or G purified from hybridoma culture supernatant |
| Immunogen | <i>E. coli</i> -derived recombinant human Laminin $\alpha 1$ Leu22-Met269 Accession # P25391 |
| Formulation | Lyophilized from a 0.2 μ m 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 μ m filtered solution in PBS. |

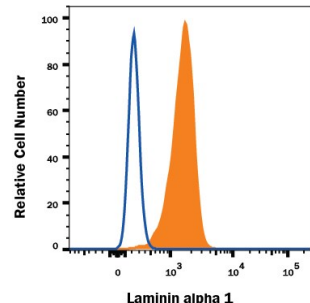
APPLICATIONS

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.

| | Recommended Concentration | Sample |
|---|--|---------------|
| Immunocytochemistry | 8-25 μ g/mL | See Below |
| Intracellular Staining by Flow Cytometry | 0.25 μ g/10 ⁶ cells | See Below |
| CyTOF-ready | Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation. | |

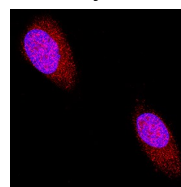
DATA

Intracellular Staining by Flow Cytometry

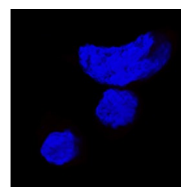


Detection of Laminin $\alpha 1$ in U2OS Human Cell Line by Flow Cytometry. U2OS human osteosarcoma cell line was stained with Mouse Anti-Human Laminin $\alpha 1$ Monoclonal Antibody (Catalog # MAB4187, filled histogram) or isotype control antibody (Catalog # MAB003, open histogram), followed by PE-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0102B). To facilitate intracellular staining, cells were fixed with Flow Cytometry Fixation Buffer (Catalog # FC004) and permeabilized with Flow Cytometry Permeabilization/Wash Buffer I (Catalog # FC005). View our protocol for [Staining Intracellular Molecules](#).

Immunocytochemistry



Positive (U-2 OS cells)



Negative (A549 cells)

Laminin $\alpha 1$ in U2OS Human Cell Line. Laminin $\alpha 1$ was detected in immersion fixed U2OS human osteosarcoma cell line (positive stain) and A549 human lung carcinoma cell line (negative stain) using Mouse Anti-Human Laminin $\alpha 1$ Monoclonal Antibody (Catalog # MAB4187) at 8 μ 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

| | |
|--------------------------------|--|
| Reconstitution | Reconstitute at 0.5 mg/mL in sterile PBS. |
| Shipping | 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 |
| Stability & Storage | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> 12 months from date of receipt, -20 to -70 °C as supplied. 1 month, 2 to 8 °C under sterile conditions after reconstitution. 6 months, -20 to -70 °C under sterile conditions after reconstitution. |

BACKGROUND

Laminin subunit $\alpha 1$ (LAMA1) is a secreted 400 kDa extracellular matrix glycoprotein that contributes to the formation of basement membrane Laminin isoforms 1 and 3. It is one of three subunits (α , β , and γ) that interact via their coiled-coil domains to form the approximately 800 kDa cruciform, disulfide-linked, Laminin heterotrimer. The 3058 amino acid (aa) residue mature human $\alpha 1$ chain contains an N-terminal Laminin VI domain (aa 18-269), followed by domains V through III containing 17 EGF-like repeats, the coiled-coil domains II and I, and five globular, Laminin G-like domains. Over aa 22-269, human Laminin $\alpha 1$ shares 95% and 91% aa sequence identity with canine and mouse $\alpha 1$ chain, respectively.