

## Product datasheet

# Anti-LAMA3 antibody [CL3112] ab242197

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### Overview

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<b>Product name</b>	Anti-LAMA3 antibody [CL3112]
<b>Description</b>	Mouse monoclonal [CL3112] to LAMA3
<b>Host species</b>	Mouse
<b>Tested applications</b>	<b>Suitable for:</b> IHC-P, WB
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Recombinant fragment corresponding to Human LAMA3 aa 2000-2150. Database link: <a href="#">Q16787</a> <a href="#">Run BLAST with</a> <a href="#">Run BLAST with</a>
<b>Positive control</b>	IHC-P: Human stomach, colon and oral mucosa tissue. WB: Human Lamin-332 recombinant protein.
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

### Properties

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<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.20 Preservative: 0.02% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), PBS
<b>Purity</b>	Protein A purified
<b>Purification notes</b>	Purified from TCS.
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	CL3112

Isotype

IgG1

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab242197 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P		1/50 - 1/200. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB		Use a concentration of 1 µg/ml. Predicted molecular weight: 367 kDa.

## Target

### Function

Binding to cells via a high affinity receptor, laminin is thought to mediate the attachment, migration and organization of cells into tissues during embryonic development by interacting with other extracellular matrix components.

Laminin-5 is thought to be involved in (1) cell adhesion via integrin alpha-3/beta-1 in focal adhesion and integrin alpha-6/beta-4 in hemidesmosomes, (2) signal transduction via tyrosine phosphorylation of pp125-FAK and p80, (3) differentiation of keratinocytes.

### Tissue specificity

Skin; respiratory, urinary, and digestive epithelia and in other specialized tissues with prominent secretory or protective functions. Epithelial basement membrane, and epithelial cell tongue that migrates into a wound bed. A differential and focal expression of the subunit alpha-3 is observed in the CNS.

### Involvement in disease

Defects in LAMA3 are a cause of epidermolysis bullosa junctional Herlitz type (H-JEB) [MIM:226700]; also known as junctional epidermolysis bullosa Herlitz-Pearson type. JEB defines a group of blistering skin diseases characterized by tissue separation which occurs within the dermo-epidermal basement membrane. H-JEB is a severe, infantile and lethal form. Death occurs usually within the first six months of life. Occasionally, children survive to teens. H-JEB is marked by bullous lesions at birth and extensive denudation of skin and mucous membranes that may be hemorrhagic.

Defects in LAMA3 are the cause of laryngoonychocutaneous syndrome (LOCS) [MIM:245660]. LOCS is an autosomal recessive epithelial disorder confined to the Punjabi Muslim population. The condition is characterized by cutaneous erosions, nail dystrophy and exuberant vascular granulation tissue in certain epithelia, especially conjunctiva and larynx.

### Sequence similarities

Contains 15 laminin EGF-like domains.

Contains 5 laminin G-like domains.

Contains 1 laminin IV type A domain.

Contains 1 laminin N-terminal domain.

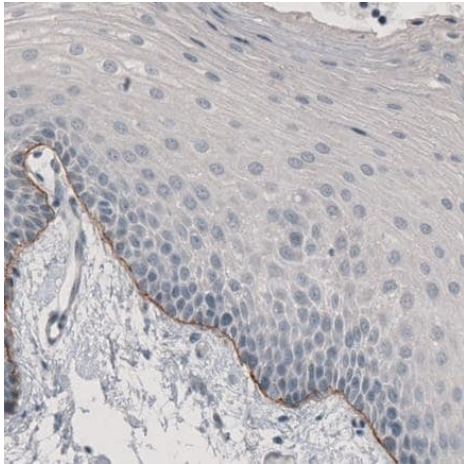
### Domain

The alpha-helical domains I and II are thought to interact with other laminin chains to form a coiled coil structure.

Domain G is globular.

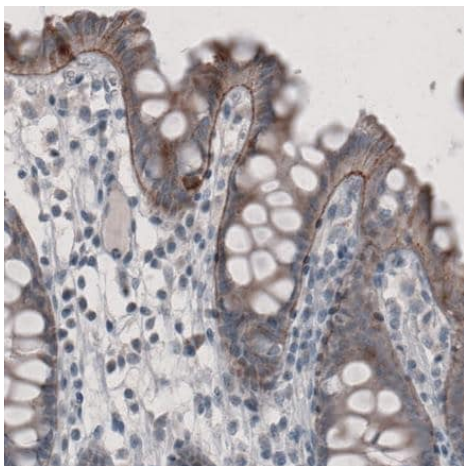
### Cellular localization

Secreted > extracellular space > extracellular matrix > basement membrane. Major component.



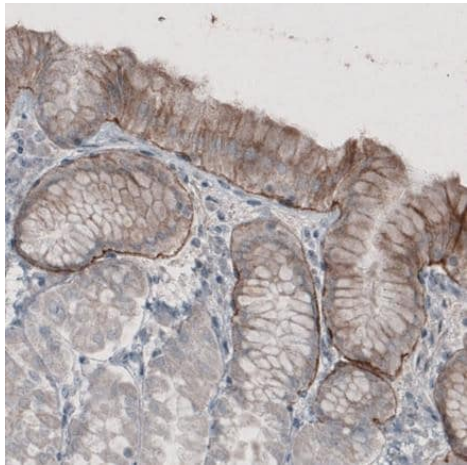
Paraffin-embedded human oral mucosa tissue stained for LAMA3 using ab242197 at 1  $\mu\text{g}/\text{mL}$  in immunohistochemical analysis.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LAMA3 antibody [CL3112] (ab242197)



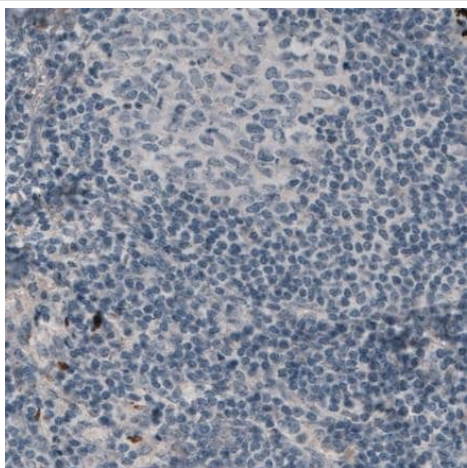
Paraffin-embedded human colon tissue stained for LAMA3 using ab242197 at 1  $\mu\text{g}/\text{mL}$  in immunohistochemical analysis.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LAMA3 antibody [CL3112] (ab242197)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LAMA3 antibody [CL3112] (ab242197)

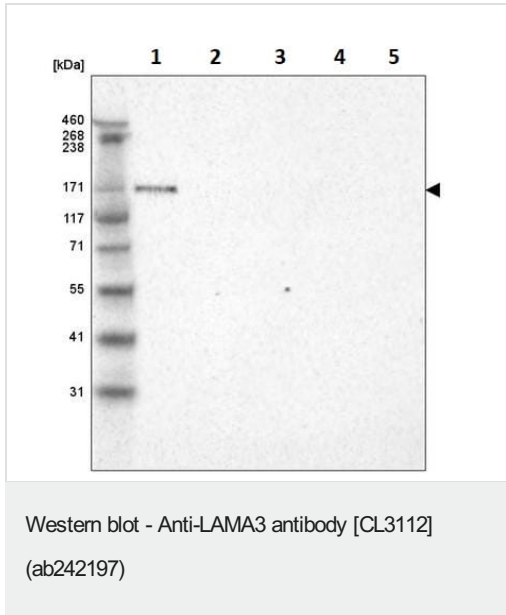
Paraffin-embedded human stomach tissue stained for LAMA3 using ab242197 at 1  $\mu\text{g}/\text{mL}$  in immunohistochemical analysis.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LAMA3 antibody [CL3112] (ab242197)

**Negative control:**

Paraffin-embedded human lymph node tissue stained for LAMA3 using ab242197 at 1  $\mu\text{g}/\text{mL}$  in immunohistochemical analysis.



**All lanes :** Anti-LAMA3 antibody [CL3112] (ab242197) at 1 µg/ml

**Lane 1 :** Purified human Lamin-332 recombinant protein

**Lane 2 :** Purified human Lamin-421 recombinant protein

**Lane 3 :** Purified human Lamin-511 recombinant protein

**Lane 4 :** Purified human Lamin-121 recombinant protein

**Lane 5 :** Purified human Lamin-221 recombinant protein

**Predicted band size:** 367 kDa

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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