

For research use only  
Not for use in diagnostic procedures

# iMatrix-Palette

Product No. AMS.892 091

Version 002b  
Store at 2-15°C

**Product description:** iMatrix-Palette is a combination kit containing iMatrix-111, iMatrix-221, iMatrix-332, iMatrix-411, and iMatrix-511. Each item is the recombinant human laminin E8 fragment protein expressed in Chinese Hamster Ovary (CHO)-S cells, comprising the integrin-binding site of each laminin isoform. The integrin-binding activity of each item is equivalent to that of each full-length laminin isoform. Each laminin isoform has different activity and specificity to integrin isoforms.

## Content:

iMatrix-111	Recombinant human laminin-111 E8 fragment protein
iMatrix-221	Recombinant human laminin-221 E8 fragment protein
iMatrix-332	Recombinant human laminin-332 E8 fragment protein
iMatrix-411	Recombinant human laminin-411 E8 fragment protein
iMatrix-511	Recombinant human laminin-511 E8 fragment protein

Plus iMatrix-511 *silk LN-511 E8 fragment, expressed in recombinant silkworm model*

## Protein concentration:

iMatrix-111 : 20 mM Phosphate buffer, 250 mM NaCl  
iMatrix-221 : PBS(-)  
iMatrix-332 : 20 mM Phosphate buffer, 500 mM NaCl  
iMatrix-411 : PBS(-)  
iMatrix-511 : PBS(-)

**Amount:** 175 µg / 0.35 mL / tube

**Storage:** Store at 2°C to 15°C, protect from light.

**Expiration date and solvent:** The shelf life is 2 years from the manufacturing date of each item. The information about solvent is described in the CoA of each item. *Lot specific CoAs are available on request from AMSBIO*

**Methods of use:** iMatrix can be used by coating onto culture vessels. Each laminin isoform E8 fragment possesses the different activity and specificity to integrin isoforms. The adhesive property of cells to each laminin isoform E8 fragment is dependent on the expression pattern of integrin isoforms in the cells. Thus the optimum coating density may differ by cell-type, cell-line, differentiated state, or purpose. Insufficient coating density may result in the detachment of cells, varied cell conditions, and uncontrolled cell differentiation, whereas the excessive coating density may lead to difficulty in detaching cells for passage. Each manual of iMatrix can be

downloaded from *AMSBIO* website:  
[www.amsbio.com](http://www.amsbio.com). Please use the URL below.

Table. Specificity of iMatrix to integrin isoforms

	alpha chain	Integrin isoforms	Examples of adherent cells
iMatrix-111	α1	α6β1, α7X2β1	neural cells, hepatoblast
iMatrix-221	α2	α7X2β1	cardiomyocyte, skeletal muscle cells
iMatrix-332	α3	α3β1, α6β1, α6β4	epithelial cells, corneal epithelial cells
iMatrix-411	α4	α6β1, α3β1	vascular endothelial cells
iMatrix-511	α5	α6β1, α3β1	pluripotent stem cells, neural cells

## References:

Nishiuchi R. *et al.* (2006) *Matrix Biol.* **25** (3), 189-97  
Taniguchi Y. *et al.* (2009), *J. Biol. Chem.* **284** (12): 7820-31  
Miyazaki T. *et al.* (2012) *Nat. Commun.* **3**, 1236  
Israeli-Rosenberg S. *et al.* (2014), *Circ. Res.* **114** (3): 572-86  
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Takayama K. *et al.* (2017) *Hepatol. Commun.* **1** (10), 1058-69  
Shibata S. *et al.* (2020) *Stem Cell Reports* **14** (4), 663-76

**Caution:** For research use only. Not intended for human use. In the event of accidental ingestion or contact with the eyes, immediately wash the affected area and seek medical attention.

**Product information:** Current information including references and FAQs are available at <https://www.amsbio.com/imatrix-recombinant-laminin-series/>

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