

For research use only  
Not for use in diagnostic procedures

## iMatrix-111

Product No. AMS.892 071 350 µg  
Product No. AMS.892 072 1,050 µg

Version 002  
Store at 2-15°C

**Product description:** iMatrix-111 is a recombinant human laminin-111 E8 fragment protein expressed in Chinese Hamster Ovary (CHO)-S cells. iMatrix-111 contains the integrin-binding site of the laminin-111 molecule. iMatrix-111 is useful for differentiation of pluripotent stem cells into hepatic progenitor cells, hepatocytes, and neural cells. iMatrix-111 also supports the culture of other cells adhering to laminin-111 such as neural cells.

**Content:** Recombinant human laminin-111 E8 fragment protein in 20 mM phosphate buffer, 250 mM NaCl

**Protein concentration:** 0.5 mg/mL

**Amount:** 175 µg / 0.35 mL / tube  
Product No. 892 071 350 µg / 2 tubes  
Product No. 892 072 1,050 µg / 6 tubes

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

**Expiration date:** The shelf life is 2 years from the date of manufacture. The expiration date is printed on the carton.

**Activity:** The dissociation constant (Kd) for the binding with integrin  $\alpha 7 X 2 \beta 1$  is 2 nM or less.

**Methods of use:** By the following method iMatrix-111 can be coated onto a culture vessel. **The optimum coating density may differ by cell-type, cell-line, medium selected, or purpose.** Insufficient coating density may result in the detachment of cells and varied cell conditions while the excessive coating density may lead to difficulty in detaching cells for passage.

### Coating protocol

Determine the optimal coating density. 0.5 µg/cm<sup>2</sup> is a standard but test between 0.1 and 2.0 µg/cm<sup>2</sup>.

- 1) Dilute iMatrix-111 with PBS(-). Use the diluted iMatrix-111 immediately. To coat with 0.5 µg/cm<sup>2</sup> onto a 6-well plate with 9.6 cm<sup>2</sup>/well, dilute 9.6 µL of iMatrix-111 with 2 mL of PBS(-) per well.
- 2) Place the diluted iMatrix-111 into a culture vessel and incubate either at 37°C for 1 h, or at room temperature for 3 h, or at 4°C overnight.
- 3) Aspirate the coating solution. Then, immediately seed your cells. **Do not allow the coated surface to dry.**

\*If you face difficulties in detaching cells for passage, re-adjust the conditions (e.g., reduce the coating density).

\*Coating protocol is illustrative only.

### References:

- Taniguchi Y. *et al.* (2009) *J. Biol. Chem.* **284** (12), 7820-31  
Doi D. *et al.* (2014) *Stem Cell Reports* **2** (3), 337-50  
Takayama K. *et al.* (2017) *Hepatol. Commun.* **1** (10), 1058-69  
Kiyozumi D. *et al.* (2020) *Life Sci. Alliance* **3** (2), e201900515  
Guo G. *et al.* (2021) *Cell Stem Cell* **28** (6), 1040-56

**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 Q&A are available at <https://www.amsbio.com/imatrix-recombinant-laminin-series/>

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