

For research use only
Not for use in diagnostic procedures

iMatrix-221

Product No. AMS.892 061 350 µg
Product No. AMS.892 062 1,050 µg

Version 003
Store at 2-15°C

Product description: iMatrix-221 is a recombinant human laminin-221 E8 fragment protein expressed in Chinese Hamster Ovary (CHO)-S cells. iMatrix-221 contains the integrin-binding site of the laminin-221 molecule. iMatrix-221 is a useful cell culture substrate for proliferation and differentiation of cardiomyocytes and skeletal muscle cells. iMatrix-221 is also useful for the culture of other cells adhering to laminin-221.

Content: Recombinant human laminin-221 E8 fragment protein in PBS(-)

Concentration: 0.5 mg/mL

Amount: 175 µg / 0.35 mL / tube
Product No. 892 061, 892 066 350 µg / 2 tubes
Product No. 892 062, 892 065 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 outer carton.

Activity: The dissociation constant (Kd) for the binding with integrin α7X2B1 is 10 nM or less.

Methods of use: By the following method, iMatrix-221 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.

Determine the optimal coating density. 0.5 µg/cm² is a standard but test between 0.1 and 1.5 µg/cm².

- 1) Dilute iMatrix-221 with PBS(-). Use the diluted iMatrix-221 immediately. To coat with 0.5 µg/cm² onto a 6-well plate with 9.6 cm²/well, dilute 9.6 µL of iMatrix-221 with 2 mL of PBS(-) per well.
- 2) Place the diluted iMatrix-221 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).

References:

- Nishiuchi R. *et al.* (2006), *Matrix Biol.* **25** (3): 189-97
Taniguchi Y. *et al.* (2009), *J. Biol. Chem.* **284** (12): 7820-31
Israeli-Rosenberg S. *et al.* (2014), *Circ. Res.* **114** (3): 572-86
Ishii K. *et al.* (2018), *Stem Cell Reports* **10** (2): 562-82

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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