



iMatrix-221

Product No. 5345-2EA
For Research Use Only

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

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 α 7X2B1 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.

Manufactured by: Nippi, Incorporated
1-1-1 Senju Midori-cho, Adachi, Tokyo 120-8601, Japan
Designed by: MATRIXOME, Inc

