

iMatrix-511MG

Product No. AMS.892 005 1,050 µg

Version 003
Store at 2-15°C

Product description: iMatrix-511MG is a recombinant human laminin-511 E8 fragment protein expressed in Chinese Hamster Ovary (CHO)-S cells. iMatrix-511MG contains the integrin-binding site of the laminin-511 molecule. iMatrix-511MG is a useful cell culture substrate for feeder-free culture and single-cell passage of ES cells and iPS cells, facilitating stable culture expansion. iMatrix-511MG is also useful for the culture of other cells adhering to laminin-511.

Content: Recombinant human laminin-511 E8 fragment protein in PBS(-)

Concentration: 0.5 mg/mL

Amount: Product No. 892 005 1,050 µg / 6 tubes
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 α6β1 is 1 nM or less.

Methods of use: By either of the following methods, iMatrix-511MG 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.

A. Pre-coating method

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-511MG with PBS(-). Use the diluted iMatrix-511MG immediately. To coat with 0.5 µg/cm² onto a 6-well plate with 9.6 cm²/well, dilute 9.6 µL of iMatrix-511MG with 2 mL of PBS(-) per well.
- 2) Place the diluted iMatrix-511MG 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.**

B. Pre-mixing method

Determine the optimal coating density for cell culture. The standard density is 0.25 µg/cm² but test between 0.1 and 1.5 µg/cm². The optimal coating density may be affected by the medium and cell density of the cell suspension.

- 1) Add iMatrix-511MG to the cell suspension. To coat with 0.25 µg/cm² onto a 6-well plate with 9.6 cm²/well, add 4.8 µL of iMatrix-511MG to 2 mL of the cell suspension per well.
- 2) Place the cell suspension containing iMatrix-511MG into a culture vessel.

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

References:

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Takashima Y. *et al.* (2014), *Cell* **158** (6): 1254-69
Miyazaki T. *et al.* (2017), *Sci. Rep.* **7**: 41165
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Goparaju S.K. *et al.* (2017), *Sci. Rep.* **7**: 42367
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Caution: 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 online at www.amsbio.com/imatrix-recombinant-laminin-511/.

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