Q: How is Corning rLaminin-521 (human) produced?
A: Corning rLaminin-521 (human) is a recombinant protein expressed in a mammalian cell line.

Q: When using rLaminin-521 (human) for single cell culture, do I need to add an apoptosis inhibitor for cell seeding?
A: No rho-kinase (ROCK) inhibitor or blebbistatin treatment is needed.

Q: Does rLaminin-521 (human) support long-term hPSC culture?
A: Human ESC lines and iPSC lines have been cultured for multiple passages on rLaminin-521 (human) (Rodin, et al., Nature Communications, 2014).

Q: Does rLaminin-521 (human) support the derivation of iPSC lines?
A: Human iPSC lines have been successfully derived on rLaminin-521 (human) (Lu, et al., Biomaterials, 2014).

Q: What hPSC lines have been cultured on rLaminin-521 (human)?
A: Several human ESC lines and human iPSC lines have been successfully expanded on rLaminin-521 (human) (Rodin, et al., 2014 Nature Communications; Lu, et al., Biomaterials, 2014).

Q: Does rLaminin-521 (human) support xeno-free hPSC culture?
A: rLaminin-521 (human) is compatible with commercially available xeno-free media formulations and recombinant dissociation enzymes, such as TrypLE™ by Life Technologies.

Q: What hPSC culture media can be used with rLaminin-521 (human)?
A: A variety of commercially available media have been successfully tested, including Stemgent NutriStem™, Stem Cell Technologies mTeSR™1 and TeSR™2, and Life Technologies Essential-8™.

Q: How do you thaw rLaminin-521 (human)?
A: Slowly thaw rLaminin-521 (human) at 4°C before use.

Q: What is the shelf-life of rLaminin-521 (human) after thawing?
A: rLaminin-521 (human) can be stored at 2°C to 8°C for 3 to 4 weeks after thawing. For longer storage, make aliquots (to avoid repeated freezing and thawing) and store at -20°C.

Q: What is the recommended cell seeding density on rLaminin-521 (human)?
A: A cell seeding density of 50,000 cells/cm² is recommended, but cell seeding density should be — optimized for different hPSC lines and media.

Q: How long does it take for cells to be ready for passaging?
A: With optimal media conditions and seeding density, most cell lines will be ready for passaging in 4 to 8 days (~80% confluence). Passaging time will vary based on the hPSC line.
Q: Can hPSCs previously cultured on other substrates, such as Corning Matrigel® matrix or feeder layers, be cultured on rLaminin-521 (human)?
A: Yes, you can perform single-cell passage on rLaminin-521 (human).

Q: Is the morphology of hPSCs passaged as a single cell suspension different than clump culture?
A: Single cells initially form small clumps that continue to grow (see images).

Warranty/Disclaimer: Unless otherwise specified, all products are for research use only. Not intended for use in diagnostic or therapeutic procedures. Not for use in humans. Corning Life Sciences makes no claims regarding the performance of these products for clinical or diagnostic applications.