

Introducing GECKO

An adherence protein mix by Media City Scientific

Many cell types require the use of an adherence coating when culturing cells with FRS™ Pioneer—or any serum-free media—on standard TC plasticware. GECKO is a chemically defined and animal component free mix of lyophilised adhesion factors found in FBS that facilitates attachment of many adherent cell types to standard cell culture plates. It works well for cell lines which depend on fibronectin for adherence, with additional adhesion peptides added to improve attachment and spreading.

User guide for coating plates with GECKO:

- **Storage:** GECKO should be stored frozen, at -5°C to -20°C .
- **Preparation:** Resuspend GECKO proteins with PBS. Include a carrier protein if desired. Store in aliquots at -20°C and minimise freeze-thaw cycles. For use as an adhesion coating, GECKO should be resuspended at 10ug/mL.
- **Preparing cell culture dishes:** Place 100uL of GECKO coating per cm^2 into each cell culture flask or well for a coating of $1 \text{ ug}/\text{cm}^2$. Ensure full surface is coated. Incubate at 37°C for 1-4h or 4°C overnight. Wrap the plate in parafilm to minimise evaporation if incubating overnight. Remove GECKO from each cell culture flask or well. The plates are now ready to receive cells.

While GECKO supports adherence for many standard cell lines, a subset of cell lines respond better to recombinant vitronectin (e.g. A549, Hep2G, MDCK). These are cell lines which are documented in the literature to respond poorly to fibronectin-based coatings.

While FRS is compatible with a wide variety of standard coatings, Media City Scientific has extensively validated GECKO and recombinant vitronectin. For scientists first getting started with FRS, we recommend GECKO with recombinant vitronectin as a backup or known alternative option. Please see our website or reach out directly to our team for adhesion recommendations specific to your cells or your workflow.

Some laboratories prefer coating-free workflows for operational reasons. Media City Scientific has established a reliable coating-free workflow for culture of adherent cells with FRS Pioneer. Please get in touch for details.