

MEF (Mouse Embryonic Fibroblast)

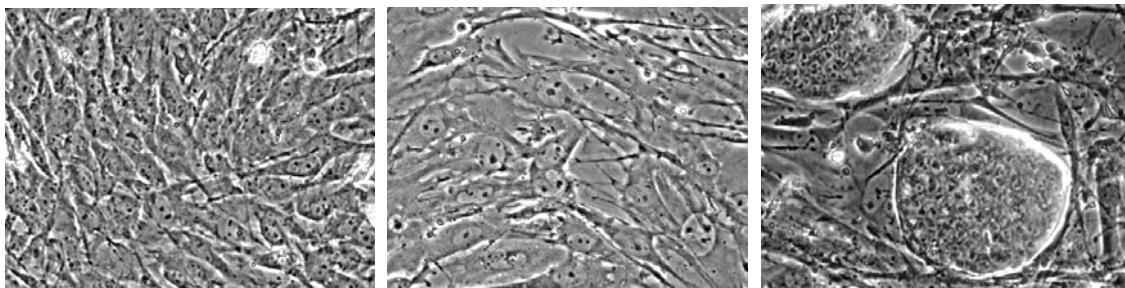
Product Information

Background Since their derivation three decades ago the mouse primary embryonic fibroblasts (MEFs) have reliably served as feeder cells for co-culturing with mouse embryonic stem cells (mESC), human and other primate ESCs, and now for induced pluripotent stem cells (iPSC). MEFs have also been used extensively in the derivation of new lines of aforementioned stem cells. It is important to note that it takes healthy MEFs to provide excellent support for growth of undifferentiated ESC/iPSC.

Functioning as a feeder layer, MEFs support the growth of cells in culture by contributing an as yet undefined and complex mixture of extracellular matrix components and growth factors. MEFs used for co-culturing of stem cells are usually mitotically inactivated so that they remain viable but cannot replicate and overgrow the ESC/iPSC culture. Mitotic inactivation of feeders are normally achieved by mitomycin C treatment or ionizing irradiation. For best result, mitotically inactivated MEFs are normally plated 24 hr on a 0.1% gelatin-coated culture vessel to obtain a supportive monolayer for stem cell growth. After plating the cells will begin to deteriorate in about 7 days.

Storage Product is shipped on dry ice. Upon receiving, vials should be stored at -80°C. If cells are not to be used within 3 months, store in the vapor phase of liquid nitrogen is recommended.

Product CytoSpring's MEFs are consistently derived from 13.5 days gestation embryos of mixed male and female gender. The cells are provided as either mitomycin C treated, ready-to-use feeders at passage 3, or untreated primary cells at passage 2 which can be further expanded to accommodate different researcher's need. Our feeders are tested for high efficient maintenance of pluripotency of mESC/hiPSC, free of mouse pathogens, and with post thaw viability typically above 90%. Each lot of our MEFs is tested for bacteria, fungi and mycoplasmas. Please refer product list for individual item.



Left: C57/BL6 MEFs, untreated
Center: CF1 MEFs, MMC treated
Right: mESC/CF1 MEFs (MMC treated) co-culture