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Preparation of primary chicken embryo liver (CEL) cells

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Protocol status: Working
We use this protocol and it's working

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Materials

MATERIALS

- Dulbecco's Modified Eagle's Medium (DMEM) **Merck MilliporeSigma (Sigma-Aldrich) Catalog #**D5796
- Fetal Bovine Serum **Gibco - Thermo Fisher Scientific Catalog #**10270106
- Gibco Penicillin-Streptomycin (10,000 U/mL) (Pen/Strep) **Fisher Scientific Catalog #** 15-140-122
- 0.1M Phosphate Buffered Saline pH 7.4
- Trypsin-EDTA (0.25%), phenol red **Thermo Fisher Catalog #**25200056

Primary CEL cell was obtained from liver embryos of 13 to 15 days old SPF embryonated chicken eggs. Liver was harvested aseptically using sterile forceps and washed twice with sterile phosphate buffered saline (PBS, pH 7.4, 0.1M). The liver tissue was minced and trypsinized gently with 0.25% Trypsin-EDTA solution for 10 minutes. The suspension was passed through muslin cloth and centrifuged at 96 x *g* for 5 minutes to obtain cell pellet. Trypsin was discarded and cell pellet was resuspended with fresh Dulbecco`s Modification Eagle Medium (DMEM), enriched with 10% fetal bovine serum (FBS) and 1% penicillin-streptomycin antibiotic. Cell concentration was counted and adjusted to 5 $\times 10^6$ cells/mL. The cell suspension (5mL) was seeded into new 25cm^2 cell culture flasks and was kept under controlled atmosphere at 5% CO_2 incubator with 85%-90% humidity until confluent monolayer formed [Soumyalekshmi et al., 2014].