



Bulldog SuperFusion ECF Buffer

Products

Cat#	Description	Pack Size
ECFB0025	Bulldog SuperFusion ECF Buffer, sterile, 25 ml	25 mL
ECFB0100	Bulldog SuperFusion ECF Buffer, sterile, 100 ml	100 mL
ECFB0500	Bulldog SuperFusion ECF Buffer, sterile, 500 ml	500 mL

Product Information

The **Bulldog SuperFusion ECF Buffer** is a low conductivity medium specifically designed for electrofusion protocols* utilizing various mammalian cell types. This product is produced under sterile conditions and contains:

0.3 M Mannitol

0.1 mM CaCl₂

0.1 mM MgCl₂

1 mg/ml BSA

Product Specifications

Conductivity @ 25°C: 0.080 ± 0.005 mS/cm

pH @ 25°C: 7.2 ± 0.2

Sterility: Sterile production and final sterile filtration

Storage: 4 °C to 10 °C

Shelf-life: 12 months from production date

*Compatible with ECFG21 Super Electro-Cell Fusion and other ECF instruments.



Protocol Recommendations

Maintain Sterile Conditions: Carefully sterilize electro-cell fusion electrode chamber with 70% ethanol prior to use. Place electrode chamber in cell culture hood to dry. To avoid sources of ionic contamination rinse thoroughly with sterile, deionized water or Bulldog SuperFusion ECF Buffer between fusion experiments.

Minimize Salt Contamination: Even small amounts of high conductivity solutions such as PBS or cell culture media may interfere with the fusion process. For this reason, it is important to wash the cells thoroughly with Bulldog SuperFusion ECF Buffer prior to electro-cell fusion. We recommend 2x washes for up to 5×10^7 cells, or 3x washes for more than 5×10^7 cells.

Optimize Cell Concentration: Typically, cell concentrations range from 5×10^6 cells per mL to 1×10^8 cells per mL. Please follow protocol and electrode manufacturer's recommendations for appropriate concentration of cells

Check for Impedance (conductance): If possible, check the impedance of Bulldog SuperFusion ECF Buffer, and make a note of the impedance value with your electro-cell fusion instrument. Always check the impedance value of ECF buffer with cells added to ensure that it is within recommended range. Low impedance values may indicate salt contamination from sample.

Check for Pearl Chain Formation: Perform a pre-check of cell alignment in an AC electric field. Cells, when exposed to a constant AC field should align along the electric field lines forming a "pearl chain" type pattern. This pattern can be disrupted by unwanted salts and ions.

Temperature for Electro-Cell Fusion. For best results use Bulldog SuperFusion ECF Buffer at room temperature.

Minimize Time in Buffer. Bulldog SuperFusion ECF Buffer is not a substitute for cell media, so minimize the time that cells are suspended in ECF Buffer (no more than 30 min). After electro-cell fusion either wash cells with cell media, or alternatively, dilute cells at least at a 5:1 ratio with cell media.