

PRODUCT INFORMATION

Schneider's Drosophila Powder Medium, revised

Cat. No. 47521

Product description:

General Schneider's Drosophila medium¹ was originally developed for the culture of Drosophila cells (Drosophila S2 cells). It can also be used for the culture of other Dipteran cell lines.

¹Schneider, I. (1964) J. Exp. Zool. 156, 91 – 104 and 166, J. Embryol. Exp. Morphol., 15, 271 - 279

Composition Without sodium bicarbonate and without calcium chloride

Storage Store powder dry at +2 °C to +8 °C. Keep container tightly closed, because powder is very hygroscopic. Signs of deterioration of the powdered medium are colour change, granulation/clumping, insolubility.
Liquid medium can be stored at +2 °C to +8 °C in the dark for ca. 6 weeks (depends on the added supplements). Signs of deterioration of the liquid medium are pH change, irreversible precipitates, cloudy appearance and/or colour change

Solution procedure:

To prepare 1 L medium:

1. Suspend 26.2 g in 900 ml water with constant, gentle stirring. Material will not completely dissolve. **Do not heat the water.**
2. Add 0.4 g of sodium bicarbonate powder or 5.3 ml of 7.5 (w/v) % sodium bicarbonate solution for each liter of the final volume of the medium being prepared. Stir until dissolved.
3. Adjust the pH to 9.2 ± 0.2 with 1 N sodium hydroxide with constant stirring. Solution may become turbid.
4. Adjust the pH to 6.7 ± 0.2 with 1 N HCl, with constant stirring. Solution will become clear.
5. Add 0.6 g of anhydrous calcium chloride per liter of the medium. Prepare a solution by dissolving 0.6 g of anhydrous calcium chloride in 50ml of tissue culture grade water. Add the solution slowly with constant stirring to avoid precipitate formation.
6. Adjust the pH of the medium to 0.1 - 0.3 pH units using 1 N NaOH or 1N HCl below the desired pH since it tends to rise during filtration. Make up the final volume to 1liter.
7. Adjust the osmolality to 340 - 360 mOsm/kg H₂O.
Osmolality can be increased by 10 mOsm/kg H₂O by adding 0.3 g/L of 0.4 g/L of potassium chloride or sodium chloride. Osmolality can be decreased by 10 mOsm/kg H₂O by adding 27.8 ml of water to per liter of the medium.
8. Sterilize immediately by filtration using a membrane with porosity of 0.22 µm or less.
9. Aseptically add sterile supplements as required and dispense the desired amount of sterile medium into sterile containers.
10. Store liquid medium at +2 °C to +8°C and in dark till use.

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