

GROWTH CONDITIONS FOR CECT STRAINS

Growth conditions for bacterial strains in the open catalogue of the CECT are clearly described in each catalogue sheet. Recommended growth conditions include:

- **culture medium:** indicated by its number in the Culture Media catalogue of the CECT
- **growth temperature** (in °C)
- **incubation time:** given in hours (h) or days (d); lag phase can be longer than the time indicated here and incubation time may need to be duplicated (particularly when activating freeze-dried cultures)
- **atmospheric requirements:** conditions recommended for revival and incubation of the culture
 - **Aerobic:** *Inoculate on agar medium on petri dishes and incubate in standard microbiological incubators. Incubate tubes of 16 by 160 mm filled with 5 ml broth statically unless otherwise indicated. If greater volumes are necessary 100 ml flasks are filled with 20 ml broth and incubated in a shaker incubator (rpm indicated in the strain catalogue sheet).*
 - **Anaerobic generating system:** *Inoculate oxygen-free tubes and plates in an aerobic environment and subsequently place them inside a re-sealable pouch or a chamber with an anaerobic generating sachet system. The anaerobic generator produces an anaerobic atmosphere with $\geq 10\%$ CO₂ within 2.5 hours.*
 - **Candle jar:** *Inoculate oxygen-free tubes and plates in an aerobic environment and subsequently place them (plates inverted) inside a jar with a lighted candle. Seal the jar. The burning candle reduces the oxygen concentration to a point where the flame extinguishes.*
 - **CO₂ generating system:** *Inoculate tubes and plates in an aerobic environment and subsequently introduce them in a re-sealable pouch or a chamber with a CO₂ generating sachet system. This system produces an atmosphere with $\geq 3\%$ CO₂.*
 - **CO₂ incubator:** *Inoculate tubes and plates in an aerobic environment and subsequently place them inside a CO₂ incubator with an atmosphere at 5% CO₂.*
 - **Deep culture:** *Inoculate tubes in an aerobic environment and subsequently place them inside a standard microbiological incubator. Use tubes with a small surface-to-volume ratio (longer than wide). Growth will start at the bottom of the tubes.*
 - **Microaerophilic generating system:** *Inoculate tubes and plates in an aerobic environment and subsequently place them inside a re-sealable pouch or a chamber with a microaerophilic generating sachet system. This system produces an atmosphere with 5-15% oxygen.*

For further details about how to handle and cultivate anaerobes please consult the following document: [Handling and cultivation of anaerobes](#)