

**TECHNICAL STANDARDS FOR CLINICAL GENETICS
LABORATORIES
(2021 Revision)**

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D: SHARED METHODOLOGIES

D1 Cell Culture

D1.1 Biosafety containment cabinets (Class IIA or IIB) must be used for all cell cultures and for the handling of viable tissues and/or fluids.

D1.2 Incubators

D1.2.1 Two incubators on separate electrical circuits (if no emergency backup power is available) are required for all amniotic fluid and chorionic villi cell cultures. These should have separate CO₂ sources and filters, and should have emergency temperature alarms.

D1.2.2 Incubators must be cleaned regularly, and incubators must be monitored for 1) temperature each working day, 2) gas weekly, and 3) humidity, as needed. Maximum-minimum control thermometers are recommended. Appropriate operating ranges for equipment should be established and posted. Protocols should outline steps to be taken when readings are outside of appropriate ranges.