

Product Name

Name: Colcemid (Demecolcine) Solution, 10 µg/mL in DPBS

Cat. No.: C3541-0010

Size: 10 mL

Product Description

N-deacetyl-N-methylcolchicine (demecolcine, colcemid) is related to colchicine but it is less toxic. Colcemid depolymerizes microtubules, limits microtubule formation, and inactivates the spindle fiber mechanism during metaphase. Colcemid binds tubulin rapidly in comparison to colchicine. Colcemid is used in chromosome analysis during lymphocyte karyotyping and in amniotic fluid cell chromosome analysis by preventing spindle formation during mitosis and causing subsequent metaphase arrest. Metaphase is the optimal phase in mitosis for the microscopic visualization of chromosomes. By treating the cells with a hypotonic solution and a series of fixation steps, metaphase chromosomes can be microscopically observed and analyzed.

Precaution and Disclaimer

- Do not use if a visible precipitate is observed in the solution.
- Colcemid Solution is mutagenic, tumorigenic, embryotoxic, and teratogenic. Read the MSDS carefully before use.

Storage and Stability

The product should be kept at **2 - 8°C**.

The product is **light-sensitive** and therefore should not be left in the light.

Shelf life: 18 months from date of manufacture.

Procedure

1. Chromosomal analysis: culture cells (amniotic fluid cells, peripheral blood cells, or bone marrow cells) in a suitable medium at a confluence of 80% (in the logarithmic phase).
2. Add the culture medium containing colcemid solution, with the final concentration from 0.1 - 0.5 µg/mL (Gradient concentration test or refer to the article).
3. Culture in a 37°C incubator for 30 - 60 min (adjust the time according to different cell types).
4. Digest the cells, and harvest it for the downstream study.

Quality Control

Colcemid (Demecolcine) Solution is tested for sterility, pH, osmolality.

Precaution and Disclaimer

For research use only, not for clinical diagnosis, and treatment.