



Nucleus Pulposus Cell Medium (NPCM)

Catalog Number: 4801

Product Description

Nucleus Pulposus Cell Medium (NPCM) is a complete medium designed for optimal growth of normal human nucleus pulposus cells *in vitro*. It is a sterile, liquid medium which contains essential and non-essential amino acids, vitamins, organic and inorganic compounds, hormones, growth factors, trace minerals and a low concentration of fetal bovine serum (2%). The medium is bicarbonate buffered and has a pH of 7.4 when equilibrated in an incubator with an atmosphere of 5% CO₂/95% air. The medium is formulated (quantitatively and qualitatively) to provide a defined and optimally balanced nutritional environment that selectively promotes proliferation and growth of normal human nucleus pulposus cells *in vitro*.

Components

NPCM consists of 500 ml of basal medium, 10 ml of fetal bovine serum (FBS, Cat. No. 0010), 5 ml of Nucleus Pulposus Cell Growth Supplement (NPCGS, Cat. No. 4852) and 5 ml of penicillin/streptomycin solution (P/S, Cat. No. 0503).

Product Use

NPCM is for research use only. It is not approved for human or animal use, or for application in *in vitro* diagnostic procedures.

Storage

Store the basal medium at 4°C, the NPCGS, the FBS and the P/S solution at -20°C. Protect from light.

Shipping

Gel ice.

Prepare for use

Thaw NPCGS, FBS and P/S solution at 37°C. Gently tilt the NPCGS tube several times during thawing to help the contents dissolve. **Make sure the contents of the supplement are completely dissolved into solution before adding to the medium.** Rinse the bottle and tubes with 70% ethanol, and then wipe to remove excess. Remove the cap, being careful not to touch the interior threads with fingers. Add NPCGS, FBS and P/S solution into basal medium in a sterile field, mix well and then the reconstituted medium is ready for use. Since several components of this medium are light-labile, it is recommended that the medium not be exposed to light for lengthy periods of time. If the medium is warmed prior to use, do not exceed 37°C. When stored in the dark at 4°C, the reconstituted medium is stable for one month.

Caution: If handled improperly, some components of the medium may present a health hazard. Take appropriate precautions when handling it, including the wearing of protective clothing and eyewear. Dispose of properly.