

Data sheet | SciNH5 medium for serum-free cell culture and T-cell propagation

Background

SciNH5 was developed to enable the growth of various (primary) human cell lines under serum-free conditions as adherent or suspension culture. The chemically defined, protein-free formulation of SciNH5 provides all essential nutrients for optimal cell growth. SciNH5 is free of any animal component and was successfully tested on following cell lines:

Cell lines: *HaCaT, H3122, Huh-7, HepG2, U2 OS, Burkitt lymphoma, hybridoma and various other human cell lines*

Primary lines: *iPSC, T-cell propagation from PBMCs and primary fibroblasts as well endothelial cells.*

Application note | Characteristics

Cell lines previously cultured in serum-free media are easily adapted by media change. SciNH5 is provided as a 0.22 µm sterile filtered as well as sterility tested liquid with an osmolality of 270 – 300 mOsmol·kg⁻¹, a pH of 7.3 ± 0.1 and tested for the absence of mycoplasma.

We recommend the addition of 2 – 4 mM L-glutamine and cell-specific growth factors such as EGF, IGF-1, TGF-β1 and/or bFGF as well as optional coating especially for iPSCs and cells derived from tissue/blood. This medium contains no poloxamer 188 or other polymers.

Performance

SciNH5 showed superior efficiency compared to FBS-containing media in T-cell propagation using commercial CD28/CD3-targeting T-cell activation agents. The enriched T-cell derived from different donors can be efficiently subcultured and freeze/thawed using SciNH5.

Furthermore, continuous cultures of (primary) cell lines can be performed by using appropriate growth as well as attachment factors as an addition if needed.

Available products

Art. No.	Components
100130a-500ml	SciNH5 <i>w/o L-glutamine, w/o nucleosides</i> Basal culture medium
100130b-500ml	SciNH5 <i>with L-glutamine, w/o nucleosides</i> Basal culture medium
100130c-500ml	SciNH5 <i>w/o L-glutamine, with optimised nucleosides</i> Basal culture medium
100130d-500ml	SciNH5 <i>with L-glutamine, with optimised nucleosides</i> Basal culture medium
100130P-1L	SciNH5 <i>w/o L-glutamine, w/o nucleosides, w/o NaHCO₃</i> powdered formulation