

SimplaceX | Enriched serum replacement, human cell line-derived

SimplaceX is a supplement for serum-free cell culture processes. It contains essential vitamins, co-factors, trace elements, hormones, recombinant human growth factor and proteins produced by continuously growing hepatocyte-derived cell lines in a concentrated and purified form.

The supplement is available in two variations:

- As a frozen liquid in various sizes.
- As a lyophilised solid for 500 ml – 2 L complete medium, which provides improved shipping and storage behaviour and is reconstituted in sterile water

It is used to replace foetal calf serum as well as human serum or platelet lysate from standard media for cell cultivation. The core component is XplaceH2 (Art. Nr. 108102), which contains proteins such as:

- **Transportproteins:** Transferrin, serum albumin (low amount), transthyretin, apolipoprotein B-100
- **Adhesion factors:** Fibronectin, vitronectin, various laminins such as 511, 411 and 211
- **Protease inhibitors:** alpha-1-antitrypsin, alpha-2-macroglobulin, plasminogen activator inhibitor
- low amount in **growth factors**, but notable amounts of VEGF-A, IGF-2, TGF- β 1

In addition to XplaceH2, the supplement provides essential **vitamins, co-factors, trace elements, hormones** and various recombinant human **growth factors**.

Application note | Characteristics

SimplaceX is sterile and ready-to-use upon reconstitution or thawing, respectively. It can replace animal sera and platelet lysate without further additions.

As serum replacement, SimplaceX can be applied at 0.5 – 2 ml/L to the desired basal media directly. The optimal concentration depends on the cell line, culture medium and culture device used. Some cell lines require additional growth factors such as PDGF, BMPs or HGF for optimal growth. SimplaceX is compatible with platelet lysates, but the addition of foetal calf serum is not recommended.

Available products

Art. No.	Components
108103-100L	SimplaceX Enriched serum replacement, human cell line-derived liquid formulation for 50 L – 200 L
108103-10L	SimplaceX Enriched serum replacement, human cell line-derived liquid formulation for 5 L – 20 L
108103-1L	SimplaceX Enriched serum replacement, human cell line-derived liquid formulation for 500 ml – 2 L
108104-1L	SimplaceX Enriched serum replacement, human cell line-derived lyophilised formulation for 500 ml – 2 L

	XplaceH2	SimplaceX
Cell line-derived proteins	X	X
Hormones	-	X
Vitamines	-	X
Co-factors	-	X
buffer salts	-	X
Recombinant growth factors	-	X
Matrigel replacement	X	-
Full flexibility	X	-
Ready-to-use	X	X