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DATA SHEET

Product name:	XenoFree Serum Substitute [XFS ²]- 100ml
Catalog number:	MX7777-150
Description:	Celprogen's XenoFree Serum Subsitute $[XFS^2]$, when formulated as a complete medium, enables the growth, proliferation, differentiation, maintaining undifferentiated status of stem cells, expansion of human embryonic stem cells (hESC), human induced pluripotent cells (hiPCS) in a cell culture medium containing only human-derived or human recombinant proteins, to facilitate the transition of hESC and hiPCS basic science research from the bench to clinic studies. The XFS ² can be utilized with human primary cell cultures at 1% to promote the same growth profiles equivalent to utilizing 10% fetal bovine serum.
	The XFS^2 product line enables you to reduce your burden in qualifying reagents during your transition from basic science research applications to clinical applications. Formulated for use in a 5% CO ₂ humidified incubator.
Storage Conditions:	-20 °C
Tissue culture:	The XenoFree Serum Substitute $[XFS^2]$ was tested and optimized with Human Stem Cells, Primary Cell Culture, hESC, induced pluripotent cells, human CSCs, CTCs and progenitor cells. The cell types were optimized on their respective extra-cellular matrix and media combinations in a $37^{\circ}C$ humidified incubator with 5% CO ₂ .
Product Orders:	Before submitting an order you will be asked to read and accept the terms and conditions of Celprogen's Material Transfer Agreement (MTA).
Permits & Forms:	In addition to the MTA mentioned above, other CELPROGEN and/or regulatory permits may be required for the transfer of this CELPROGEN material. Anyone purchasing CELPROGEN material is ultimately responsible for obtaining the permits.
Notices & Disclaimers:	CELPROGEN products are intended for laboratory research purposes only. They are not intended for use in humans. Product established and manufactured by CELPROGEN Inc., for Research Use Only. This product is not for re-sale or may not be transferred to third party prior to written request and approval by CELPROGEN Inc.

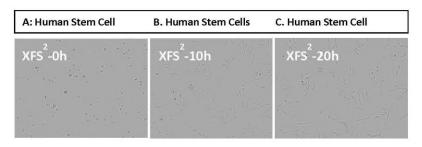


Figure 1: The above Human Epithelial Stem cells were cultured in complete Xeno-free culture conditions with 1% XFS^2 , the growth was captured with ESSEN bioscience ,real time imager, IncuCyte ZOOMTM and their proliferation rates captured in the graph below.

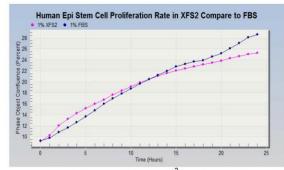


Figure 2: Human Epithelial Stemcells cultured in 1% XFS² and 1% Fetal Bovine Serum conditions, and their growth was captured with ESSEN bioscience ,real time imager, IncuCyte ZOOM™.