

# XerumFree

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## DEFINED CELL CULTURE

### Culture cells *in vitro* without the use of serum and without any animal or human derived compound

XerumFree is a fully defined additive, avoiding the need for serum, for a wide range of cell culture practices. Since XerumFree is chemically defined it avoids lot-to-lot variations. All components in XerumFree are highly purified and identified chemical compounds.

#### BENEFITS

- ✓ Contains no animal or human derived material
- ✓ Due to its chemically defined nature there are no lot-to-lot variations. This skips the need for testing new batches of serum
- ✓ There is no interference of unknown serum compounds in your research
- ✓ Since it doesn't contain hormones nor cytokines it doesn't bias your research data
- ✓ XerumFree is animal vesicle free, ideal for exosome research

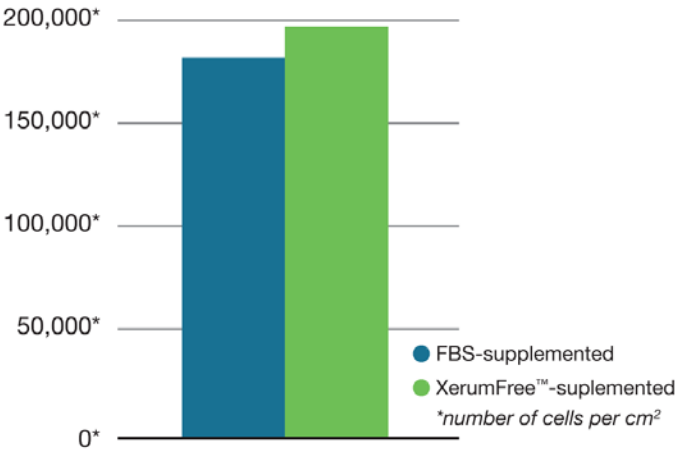
#### EASY USE:

Just add XerumFree to your culture medium as you do with FBS (usually 10%). To shift from FBS containing media to XerumFree containing medium we advise to follow the step-by-step weaning of the cells as described in the manual of use.

Examples of cells, which have successfully been cultured on XerumFree enriched medium:

- ✓ Liver epithelial cells
- ✓ HaCaT
- ✓ Primary human hepatocytes
- ✓ Hybridoma
- ✓ VERO
- ✓ HEK293
- ✓ CHO
- ✓ HEP G2
- ✓ HeLa
- ✓ Human keratinocytes

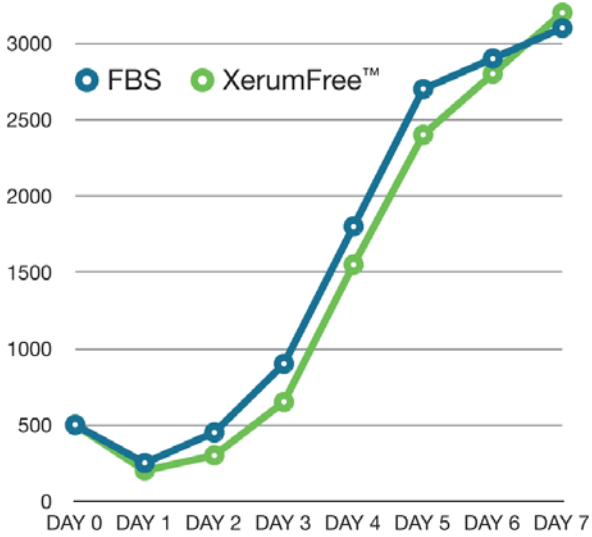
**Evaluation of growth in serum-supplemented versus XerumFree™-supplemented medium.**



**Figure 1.** This study compares the growth dynamics of Vero cells fully adapted to serum-free growth in XerumFree™-supplemented medium against those of the parental line growing on FBS-supplemented medium. The result are from a 6-day culture period in T25 flasks

Medium	Seeding cell density (per cm <sup>2</sup> )	Final cell density (per cm <sup>2</sup> )	Cell Multiplication Index
Williams ME + 10% FBS	20,000	184,000	9.20
Williams ME + 10% XF™	20,000	197,000	9.85

**Growth curves of human fibroblasts in 10% FBS vs XerumFree™**



Y-axis: Number of cells x 1000  
 Basal medium: DMEM/F12  
 Cells: Human telomerase immortalised fibroblasts  
 The results: A mean of three replicate cultures

Description	Pack Size	Catalogue No.
XerumFree	100 ml	XF212-0100
XerumFree	500 ml	XF212-0500
XerumFree	on request / customized	XF212-xxxx

**REFERENCES:**

- Schiller LT, et al. “Enhanced Production of Exosome-Associated AAV by Overexpression of the Tetraspanin CD9”. Mol Ther Methods Clin Dev. 2018 Mar 29;9:278-287.
- Yamada T, et al. “Cell Infectivity in relation to bovine leukemia virus gp51 and p24 in bovine milk exosomes.” PLoS One. 2013 Oct 17;8(10):e77359.