

HFSdaFREE™ KIT

A 3-COMPONENT, CHEMICALLY-DEFINED ANIMAL ORIGIN-FREE (cdAOF) CELL CULTURE SUPPLEMENT SYSTEM FOR HUMAN FIBROBLASTS

 <p>AVANTBIO AVANTBIO.COM Phone: +1 206-823-5895</p>	<h3>HFSdaFREE™</h3> <p>DEFINED ANIMAL ORIGIN-FREE</p> <p>2.5 mls 100X Sterile Concentrate</p> <p>Store at -20°C. Thaw at Room Temp.</p> <p>Avoid Contact or Ingestion. For R&D Use Only.</p> <p>Consult Product Insert For Proper Usage & Handling.</p> <p>PRODUCT AVB02HFS LOT: DOM:</p>	<h3>HFGE™</h3> <p>Human Fibroblast Growth Enhancer</p> <p>0.5 mls 1000X</p> <p>Sterile Concentrate Store Below 8°C For R&D Use Only</p> <p>Avoid Contact or Ingestion</p> <p>Product AVBP-010</p> <p>LOT: DOM:</p> <p>AVANTBIO (206) 823-5895 AVANTBIO.COM</p>	<h3>HFGE2™</h3> <p>Human Fibroblast Growth Enhancer 2</p> <p>1 ml 500X</p> <p>Sterile Concentrate Store at -20°C For R&D Use Only</p> <p>Avoid Contact or Ingestion</p> <p>Product AVBP-040</p> <p>LOT: DOM:</p> <p>AVANTBIO (206) 823-5895 AVANTBIO.COM</p>
--	---	--	--

DESCRIPTION AND CONTENTS

- AvantBio Products: HFSdaFREE (product no. AVB02HFS), HFGE (product no. AVBP-010) and HFGE2 (product no. AVBP-040)
- HFSdaFREE 5 ml Volume, 100X concentrated cdAOF supplement. Sterilized by filtration.
- HFGE 0.5 ml Volume, 1000X concentrated cdAOF Supplement. Sterilized by filtration.
- HFGE2 1.0 ml Volume, 500X concentrated cdAOF Supplement. Sterilized by filtration.
- Shipped and stored frozen (-80° C or -20° C)
- Shelf life: 18 months from date of manufacture when stored at -20 °C.
- For laboratory usage only. Not to be used for therapeutic or diagnostic purposes in humans or animals. Use good laboratory practices when handling. Avoid contact and do not ingest. Consult SDS.

DIRECTIONS FOR USE

1. To efficiently support the propagation of human fibroblast primary and post-primary cell cultures in the cdAOF environment, AvantBio recommends that HFSdaFREE, HFGE and HFGE2 be used to supplement a **50/50 mixture of EpiLife®** (ThermoFisher Scientific, cat. no. MEPI500CA) and **Human Fibroblast Expansion Basal Medium** (ThermoFisher Scientific, cat. no. M106500).
2. Thaw supplements at room temperature. Use immediately, or store for up to 6 hours at 4° C before use. Do not leave thawed product at 37 °C, or at room temperature for longer than 20 minutes. Do not re-freeze. Wipe vial clean with 70% isopropyl alcohol before use. HFSdaFREE, HFGE and HFGE2 quantities (volumes) are intended to supplement 500 mls of a 50/50 mixture of EpiLife® / Human Fibroblast Expansion Basal Medium®. Use entire contents of each vial (i.e. rinse vial 1 x with basal medium).
3. Pre-coating the cell culture surface (substratum) with animal origin-free recombinant human collagen-1 (at 5 ug/cm²), or other animal-sourced collagen-1 (e.g. human / bovine), can enhance cell survival, cell proliferation and cell replicative lifespan.
4. For both primary culture and post-primary serial propagation, pre-coating the cell culture surface (substratum) with collagen-1 **is required for efficient propagation**. Animal origin free recombinant human collagen-1 can be purchased by request from Collplant Inc. (e.g. Collplant cat. No: W1019-30ml). Also see: http://testing.collplant.com/collage_brochure.pdf and <https://collplant.com/>).

5. Additionally, Corning® CellBIND® cell culture-ware **may partially replace the requirement for collagen-1 pre-coating** (see: www.corning.com/worldwide/en/products/life-sciences/products/surfaces/cell-bind.html). CellBIND® has been successfully utilized to propagate post-primary human fibroblasts under cdAOF conditions, but at a reduced proliferation rate compared to fibroblasts cultured in the presence of collagen-1 pre-coating. **CellBIND® has not been tested on primary human fibroblast cultures.**
6. Prior to plating fibroblasts into primary culture, make sure that the cells (cell pellet) are washed essentially free of residual collagenase. Residual collagenase transferred to the primary cell culture can degrade the collagen-1 substratum and inhibit plating of the primary fibroblasts.
7. TrypLE™ Select 1X (ThermoFisher Scientific: cat. no. 12563029) is recommended for cell dissociation during post-primary serial propagation.

AVANTBIO PRODUCT LIMITED USE AGREEMENT

By acceptance of AvantBio's products (e.g. CRYOVIVE™, HKSdaFREE™, HKGE™, HKGE2™, HKSdaFREE2™, HKGE3™, HFSdaFREE™, HFSdaFREE2™, HFGE™, HFGE2™) and any other similar or dissimilar AvantBio products, whether purchased or received free of charge (herein "the transferred products"), the buyer or transferee (herein "the recipient") agrees to the terms of this Limited Use Agreement for the products, as follows:

ALLOWED USAGE OF AVANTBIO'S TRANSFERRED PRODUCTS: The recipient agrees to use (herein "the use") the transferred products only for research or experimental laboratory purposes performed by the recipient. As such, the recipient is granted the right to use the transferred products in the laboratory research or experimental laboratory settings (e.g., testing, performance testing, preclinical testing), regardless of whether or not the recipient is an academic non-profit or for-profit organization, or a corporate for-profit organization. The transferred products or material(s) made through the use of the transferred products, are not to be secondarily transferred by the recipient to any third party for any use whatsoever, including redistribution, resale, laboratory, preclinical laboratory or clinical use. The recipient agrees that the transferred products or material(s) made through the use of the transferred products will only be used by the recipient, at their facilities for non-commercial purposes.

DISALLOWED USAGE OF AVANTBIO PRODUCTS: The recipient agrees that the transferred products or material made through the use of the transferred products will not be utilized for any therapeutic, prophylactic or diagnostic purposes in humans or other animals, or any other purposes in humans or other animals. Further, the recipient agrees to not perform any analytical activity on the transferred products, or material made through the use of the transferred products, that could result in the determination of the identity or concentration of the transferred product's individual components (e.g., reverse engineering). Similarly, the recipient agrees to not assist, solicit, help, enable, and/or contribute to the performance by others of any analytical activity on the transferred products or material made through the use of the transferred products that could result in the determination of the identity or concentration of the transferred product's individual components. The recipient also agrees that they will not resell or sell the transferred products or material made through the use of the transferred products to third parties or otherwise use the transferred products, or material made through the use of the transferred products for any other commercial consideration with third parties. Furthermore, the recipient agrees to be legally responsible and hold AvantBio harmless for any regulatory/legal requirements, costs, losses or any potential or real damages associated with the secondary shipping, transfer, export or import of the transferred products from the United States or its territories to countries outside the United States or its territories.

FUTURE USAGE OF AVANTBIO'S TRANSFERRED PRODUCTS: The following activities, which use either the transferred products, or downstream material made through the use of the transferred products for commercial purposes or any other commercial consideration with third parties, can only be granted to the recipient under future and separate agreements with AvantBio Corporation. Examples that require future and separate agreements include: 1.) The commercial use of the transferred products or material made through the use of the transferred products for therapeutic purposes, prophylactic purposes, diagnostic purposes, cosmetic, cosmeceutical or any other related purpose in (or for) humans and other animals, 2.) The resale or sale of the transferred products, or the resale or sale of products or material made through the use of the transferred products, or any other commercial activities for consideration with third parties.

ADDITIONAL INFORMATION: If the recipient cannot agree to the terms of this Limited Use Agreement for the transferred products, AvantBio will accept the return of your unused the transferred products, and will provide any reasonable reimbursement due to the recipient. The recipient agrees that AvantBio's products are subject to limited availability without prior notice and are also not warranted for any specific use or performance level, as also described in AvantBio's Forward Looking Statement (see: <http://www.avantbio.com/legal-statement/>). The recipient also agrees that this Limited Use Agreement shall be construed under and be governed in all respects by the laws of the United States of America (USA).



AvantBio Corporation, PO Box 5820, Lynnwood, WA 98046 USA. Phone +1 (206) 823-5895

Email: info@avantbio.com Also Visit: www.avantbio.com