Lipogro® is a safe sourced, high potency lipoprotein solution that reduces or eliminates the need for Fetal Bovine Serum (FBS), and enhances serum free media performance in mammalian cell cultures. It is manufactured in a dedicated production facility, and all source material is of Australia, New Zealand, or Domestic (US) origin.

RMBIO Lipogro® Lipoprotein Solution is intended for research or further manufacturing use to enhance the growth of cholesterol-dependent cell lines, as well as the production of monoclonal antibodies and recombinant proteins. The addition of BSA and other supplements is not required.

Instructions for Use

**Adaptation to Eliminate FBS Usage**

1. Supplement basal media with 10% FBS, and add 2% RMBIO Lipogro®.
2. Begin with cultures that are actively growing in mid-log phase.
3. Seed culture at 3 X 10^5 cells per mL (appropriate seeding density may be clone-specific).
4. Incubate until culture reaches 1 X 10^6 cells per mL.
5. Reduce the amount of FBS used during each passage in subculture as follows:*  
   - 10%
   - 5%
   - 2%
6. Passage cells two to three times for each serum level used. The growth rate of the cells should return to an acceptable level before further reducing serum concentration.
7. Once cells are passaged in 2% FBS, combine 50% SFM with 50% basal medium containing 2% FBS.
8. Passage cells two to three times. The growth rate of the cells should return to an acceptable level before further reducing serum concentration.
9. Reduce serum supplementation to 0%. The cell cultures are completely adapted and can be maintained at a density of 2 X 10^5 cells per mL

**Adaptation to Reduce FBS Usage**

1. Supplement basal media with 10% FBS, and add 0.25% to 2% RMBIO Lipogro®.
2. Begin with cultures that are actively growing in mid-log phase.
3. Seed culture at 3 X 10^5 cells per mL (appropriate seeding density may be clone specific).
4. Incubate until culture reaches 1 X 10^6 cells per mL.
5. Reduce the amount of FBS used during each passage in subculture as follows:*  
   - 10%
   - 5%
   - 2%
6. Passage cells two to three times for each serum level used. The growth rate of the cells should return to an acceptable level before further reducing serum concentration.
7. Once serum is reduced to 2% and the cell cultures are completely adapted, they can be maintained at a density of 2 X 10^5 cells per mL

* All studies have been done without the use of BSA and other supplements, such as ITA; however, they may be added for enhanced performance.