

Cellgro® rhLactoferrin

Recombinant Human Lactoferrin (Holo) Animal-free

Introduction

cellgro® rhLactoferrin is recombinant human lactoferrin that has been produced from an animal-free expression system. Human lactoferrin is present in serum, milk and colostrum, and has growth promoting activities in mammalian cell culture. rhLactoferrin can also supply iron, similar to transferrin, in certain cell culture applications. rhLactoferrin iron-binding delivery to the cell is not as efficient as transferrin. Thus, it is not recommended as a direct replacement for transferrin. rhLactoferrin utilizes different cellular receptors than human transferrin and has been reported to regulate cell growth and differentiation, myelopoiesis, endothelial cell adhesion, the production of cytokines and chemokines, and apoptosis. rhLactoferrin stimulates proliferation in many cell types via the akt pathway. rhLactoferrin can be used as a growth factor and the iron saturated form (Holo) is recommended for this purpose. This product is for cell culture applications and research use only. It is not intended for other uses.

Applications

rhLactoferrin has been shown to enhance the growth of many cell types including intestinal cells, hybridoma cells, HEK, 3TC, and osteoblasts. rhLactoferrin's ability to enhance protein production has been tested in hybridoma and CHO cell lines. The optimum concentration of rhLactoferrin for cell culture varies with the cell line. Reported effective concentrations for hybridoma cell lines range from 5-400 mg/L; HEK 293, 100-200 mg/L; and CHO, 250-750 mg/L. Other cell lines, such as osteoblasts, show effective growth stimulation at concentrations below these concentrations. Many cell lines require little or no adaptation to rhLactoferrin. Following adaptation, rhLactoferrin concentration can often be reduced.

Storage and Preparation

rhLactoferrin powder should be stored at -20° C. Stock solutions can be prepared by dissolving gently into PBS for several minutes. Typical stock concentrations are 100 mg/ml in PBS, although others can be used. Avoid the formations of bubbles when dissolving. Filter through 0.2µ filter to sterilize. rhLactoferrin is stable in solution for several weeks at 4° C and can be stored in solution at -20° C. Avoid repeated freeze-thaw cycles of rhLactoferrin in solution.

Product Name	Category No.	Size
cellgro® rhLactoferrin	62-451-RF	1 g