

Zap-CHO™

Guidelines for Use

Zap-CHO™ Description

CHO cell culture media supplement for optimal growth and productivity.

Introduction

Zap-CHO is a CHO cell culture media supplement that has been formulated to optimize growth and productivity of CHO cells. This supplement has been shown to improve performance in chemically-defined media as well as other serum-free media formulations. Zap-CHO is free of animal origin components and has been manufactured in an animal-free production system. Zap-CHO has been produced for cell culture applications and research and is not intended for other uses.

Applications

Zap-CHO has been shown to improve performance of a variety of CHO cell culture media formulations including chemically-defined, classical, and serum-free media formulations. It was developed to enhance the growth and productivity of CHO cells. Zap-CHO may have multiple effects on CHO cells in addition to enhanced cell growth, including faster doubling times, increased maximum cell density, reduced apoptosis, and increased viability. Uses include cell line development, seed train expansion, optimizing fed-batch bioreactor performance, improving cell growth efficiency and kinetics, and increasing cell productivity. Zap-CHO is designed to be scalable to provide the desired growth enhancing effect and productivity enhancing effect in shake flask, pilot scale bioreactors up to commercial fed-batch bioreactors.

Recommended concentrations

The optimum concentration of Zap-CHO varies with the media formulation and the desired effect. If improved cell growth is the desired effect, such as with cell line development or seed train expansion, higher concentrations such as 1 to 1.5 grams per liter are recommended. Often, lower concentrations, such as 0.25 to 0.5 grams per liter, are utilized when the objective is to optimize productivity. For initial evaluation of Zap-CHO, we recommend a range as follows: 0.25, 0.50, 1.00 and 1.50 g/liter.

Storage and Preparation

Zap-CHO is a powder and should be stored at -20° C. Stock solutions can be prepared by dissolving gently into PBS for several minutes with gentle mixing. Avoid the formation of bubbles when dissolving. Typical stock concentrations are 200 mg/ml in PBS, although others can be used. Filter through a 0.2µ filter to sterilize. Zap-CHO is stable in solution for at least 30 days at 4° C. Stock solutions can be stored frozen at -20° C for longer term storage. Avoid repeated freeze-thaw cycles of Zap-CHO solution.

For further information on Zap-CHO see www.ZapCHO.com or contact InVitria technical support toll-free at 1-800-916-8311.