

Large Scale Production of Stable Hemolymph Juvenile Hormone Binding Protein

ABSTRACT

To better understand the pathways of the insect juvenile hormone (JH) action, milligram amounts of pure hemolymph juvenile hormone binding protein (hJHBP) are required. Hence the goal of this study is to scale up the system obtaining for purified and stable hJHBP. A *Drosophila* S2 cell line was previously established in the laboratory and stably transfected with a plasmid containing the coding region of hJHBP. The construct included a metallothionein promoter which induces the recombinant JHBP (rJHBP). Purification of the protein produced involved column chromatography using a HisBind resin (Novagen). The production, purification and cleavage of rJHBP had to be significantly modified from previous results to obtain a functional *Manduca sexta* hJHBP.