ABSTRACT

ISOLATED NUCLEIC ACIDS ENCODING A SECRETORY SIGNAL FOR EXPRESSION AND SECRETION OF HETEROLOGOUS RECOMBINANT PROTEINS

A universal secretory signal originally derived from a piscine vitellogenin (Vtg) gene is inserted into various expression vectors for driving the secretion of the recombinant protein into the culture medium. This enhances the detection, quantification and downstream scaled-up purification of a recombinant protein of interest. The secretory signal system is very versatile, being conveniently and widely applicable to an array of heterologous host cells such as bacteria, yeast, insect, piscine, and mammalian cell lines (e.g.,: COS, CHO, NIH/3T3). The said secretory system is also applicable as a reporter vector for secretion of reporter proteins/enzymes, thus, enabling the detection of the reporter proteins (e.g., CAT, GFP) in the culture medium.

(Fig. 8A and Fig. 8D are to be published)

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