The pRSET System

pRSET A,B,C Expression Vectors; macplasmid #'s 319, 320, 321 respectively

The pRSET vecotrs allow high level expression in *E. coli* in the presence of T7 RNA polymerase by utilizing the strong affinity of the polymerase for the T7 promotor. A short leader sequence affords stability to RNA transcripts, and a terminator sequence insures efficient transcriptional termination.

Genes of interest are cloned into each of the three reading frames provided by the vectors, allowing expression of functional proteins. The vectors may then be transformed into a competent *E. coli* strain of choice. If transformed into an F' containing strain, then expression can be induced by infection with a recombinant M13 expression a cloned copy of T7 RNA polymerase (M13/T7, 1 mL high titre stock provided with vectors).

The metal chelating domain of the fusion peptide allows simple one step purification of recombinant proteins by immoblilized metal affinity chromatography (IMAC). An enterokinase cleavage recognition site on the fusion peptide allows it to be removed from the recombinant protein.