INTRODUCTION

The S-30 system for E. coli coupled transcription-translation was first described by Zubay. Proteins are synthesized from an exogenous DNA template. The yield from this system is comparable to that of RRL, and the ease of use is somewhat more simple. One must remember that a bacterial promoter (i.e. not SP6 or T7) and Shine-Delgano sequence must be present for translation of the desired protein.

As prepared, the S-30 system contains endogenous bacterial membrane vesicles. These can be removed by high speed centrifugation, but membrane-free ribosomes must be isolated and added back to this system in order to restore translation.