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(54) Title: DUAL EXPRESSION VECTOR SYSTEM FOR ANTIBODY EXPRESSION IN BACTERIAL AND MAMMALIAN CELLS

(57) Abstract: The present invention provides a dual expression vector, and methods for its use, for the expression and secretion of a full-length polypeptide of interest in eukaryotic cells, and a soluble domain or fragment of the polypeptide in bacteria. When expressed in bacteria, transcription from a bacterial promoter within a first intron and termination at the stop codon in a second intron results in expression of a fragment of the polypeptide, e.g., a Fab fragment, whereas in mammalian cells, splicing removes the bacterial regulatory sequences located in the two introns and generates the mammalian signal sequence, allowing expression of the full-length polypeptide, e.g., IgG heavy or light chain polypeptide. The dual expression vector system of the invention can be used to select and screen for new monoclonal antibodies, as well as to optimize monoclonal antibodies for binding to antigenic molecules of interest.