Post Translational Modification on Bacterial Collagen: Hydroxylation of Recombinant Collagen from S. pyogenes

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Bacterial collagen like recombinant protein, VCLCL, from S.pyogenes is hydroxylated with dual plasmid system that codes for human prolyl hydroxylase (P4H) enzyme and 1,4 arabinono lactone oxidase (ALO) enzyme. Cloning of the recombinant bacterial collagen gene into the dual plasmid system is achieved via common recombinant DNA technology methods. As a side project, in order to increase the yields, low copy number plasmids are replaced by high copy number plasmid with the same cloning strategy. Colony screening for the desired gene is underway that will follow by transformation of the gene to the expression strain.

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