

Successful cloning and overexpression of human interferon- α 2b in Escherichia Coli

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Interferon has been the cornerstone for treatment of HCV patients in last 30 years. Since the introduction of direct acting antiviral drugs that selectively targets to the HCV, interferon becomes less important for clinical practice of HCV infection. However, the interferon will be remained as one of the principal drugs for viral infection as broad spectrum anti-viral immune modulator agent. In this project, we have developed interferon expressing construct by cloning the cDNA of human interferon- α 2b into bacterial expression vector pET41a. The construct was transformed into BL21DE3 E.coli strain to establish stable protein producing clones. Several clones were selected by their high yield of interferon that matches for expected molecular weight by analysis of SDS-PAGE. Ultra purification of interferon product by HPLC and its bioequivalent test analysis according to the WHO guidelines are in progress.