Cloning, Expression, Purification and Structural Evaluation of the Jun Oncoprotein.

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The Jun protein is one of the major component of the AP-1 complex that is involved in the inflammatory process, differentiation, apoptosis and cellular migration. The Jun protein can form homodimers or heterodimers with the family Fos. This dimerization occurs through leucine zipper site. There is evidence that this protein can be inhibited by RPL10 protein in the cell nucleus, stopping the progression of tumors. This bind with the RPL10 protein occurs at same leucine zipper site. This study aims to express, isolate and characterize the binding region of sequences of leucines, for further studies to analyze the bindig with the RPL10 protein. The cDNA of human Jun was amplified from RNA of PC3 culture and sequenced, then from the cDNA was amplified the AP-1 region and cloned into the vector pet 26. The expressed in *E. coli* BL21 was analyzed by SDS-PAGE and stained with Coomassie Blue. The sequencing confirmed the correct sequence of cDNA for the AP 1 region and in the cloning was obtained three positive clones. The first tests of expression showed the high production of the AP-1. The next steps are protein characterization by amino acids sequencing and circular dichroism.

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