



Cloning, Expression, Purification and Structural Evaluation of the region of AP1 Jun Oncoprotein.

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The oncoprotein Jun is an important component involved in the formation of the AP-1 complex, that is related to inflammation, cellular differentiation, apoptosis and other biological processes. The oncoprotein Jun can form homodimers or heterodimers through the site of leucine zipper, connecting the DNA as soon regulating gene transcription. Recent studies show that dimerization between the protein Jun and RPL10 occurs in the nucleus of the cell, stopping the progression of tumors.

This study aims to express, isolate and characterize the region where dimerization occurs to form the AP-1 complex, for further studies of the binding with the protein RPL10.

The cDNA was amplified from PCR reactions and cloned into the expression vector PET 28. Expression was done in *Escherichia Coli* BL21 and analyzed by SDS PAGE. Confirmation of protein expression was made by Western blotting analysis and by mass spectrometry. After confirming started protein purification via affinity chromatography because the vector has a sequence of histidine as soon having affinity by nickel, then a new purification step was performed by gel filtration, separates the proteins by molecular weight. The next step will be the characterization by circular dichroism to verify it will is the correct conformation of alpha helix

Word Keys: Jun, AP1, Leucine zipper

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