

ALY: A POSSIBLE E2F INTERACTING PROTEIN

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E2F transcription factors (E2F8-1) are known to play a central role in regulating gene expression during cellular proliferation. E2F family members have been classically divided into activators (E2F1-3a) and repressors (E2F3b-E2F8) based on their transcriptional roles *in vitro* and conserved structural features. However, several studies have largely demonstrated that this classification is too simplistic since some E2Fs can act either as positive or negative regulators, depending on the biological context. Precisely, it is known that the interacting partners of E2Fs are of paramount importance for the transcriptional activity of them. However, the ones described so far are insufficient to understand how is regulated the transcriptional activity of this transcription factor family.

We are interested in studying E2F1-3 but we are focusing our effort on E2F2, because previous works in our lab have demonstrated that not only can this factor act as a transcriptional activator but also as a repressor. The aim of our work is to identify and characterise new E2F2 interacting proteins that may help us shedding light on the role of transcription factor E2F2.

For this purpose, E2F2 containing protein-complexes were immunoprecipitated with a specific antibody against E2F2, and, following tryptic digestion, precipitated protein complexes were identified by LC-MS/MS. Together with E2F2, several potential E2F2 interacting partners were identified also. Among these, ALY was proven to interact not only with E2F2, but also with E2F1 and E2F3. In addition to this, preliminary results suggest that ALY could be modulating the transcriptional activity of these three E2Fs.