

P050 Locating sites of interaction between eIF2B subunits
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eIF2B is a protein complex known to regulate translation initiation in eukaryotes by acting as a GDP-GTP exchange factor (GEF) for eIF2. When eIF2 is bound to GTP it can form a Ternary Complex (eIF2, GTP and tRNA^{-Met}), which is necessary for translation initiation. The eIF2B complex is composed of five subunits (Gcn3p (α), Gcd7p (β), Gcd1p (γ), Gcd2p (δ) and Gcd6p (ϵ)). The α , β and δ subunits form a trimeric sub-complex while the ϵ subunit catalyses GTP exchange and forms a binary sub-complex with eIF2B γ . eIF2B ϵ and eIF2B γ have sequence similarities including regions previously identified as necessary for protein interactions in unrelated protein families found in bacteria and eukaryotic cells. To investigate the interactions between the eIF2B γ and eIF2B ϵ subunits we have tagged fragments of the eIF2B ϵ subunit (Gcd6p), which we used in an *in vivo* immuno-precipitation assay. By over-expressing these truncated versions of eIF2B ϵ *in vivo*, we have also been able to correlate our protein interaction results with dominant negative growth phenotypes of the yeast cells. These results suggest that two regions of eIF2B ϵ (Gcd6p) independently contribute to eIF2B γ - ϵ interactions.