

**Characterization of Proteins that Interact with the Catalytic Subunit of Serine/Threonine Phosphatase of Type 1 (PP1) of *Dictyostelium discoideum***

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Several protein serine/threonine phosphatases (STP), in particular those belonging to PPP (Phosphoprotein Phosphatase) family are composed of one catalytic subunit and one or more regulatory subunits that provide functional diversity to the holoenzyme. In this work our goal is to identify protein interactors to type 1 (DdPP1c) phosphatase that might behave as potential regulatory subunits of this enzyme in the social amoeba *Dictyostelium discoideum*. Two hybrid screenings revealed potential candidates to interact with DdPP1c. One of them is DDB0233538 that is annotated in *D. discoideum* genome as hypothetical protein of unknown function. We detected, by RT-qPCR, an increase in transcript levels of DDB0233538 during development (8h – 12h) of *D. discoideum*. The cDNA clone isolated from the screenings was not complete. Therefore, we cloned the complete coding sequence of DDB0233538 and its interaction with DdPP1c on two-hybrid assays was further confirmed. Supported by FAPESP and CNPq.

Key words: *Dictyostelium discoideum*, two-hybrid system, protein phosphatase, protein interaction