

## Interaction of Puchellin A-chain (a RIP type 2) with ANS

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Puchelin is a ribosome inactivating protein type 2 (RIP 2), from *Abrus pulchellus*, and as ricin and abrin, is a highly toxic protein. These proteins consist of two polypeptide chains: A-chain with RIP activity and B-chain with lectin properties. Both, A and B Puchelin recombinant chains (rPAC and rPBC) were obtained and characterized in our group (FEBS journal, 272 (2005) 1201-1210). In order to contribute with studies of membrane interaction of these protein we will investigate the rPAC structure and interaction with phospholipids vesicles by spectroscopy methods as fluorescence emission (FE), Circular Dicroism (CD) and EPR Spin-Labeling. Partial results with rPAC and ANS (acid 1-anilinonafitalen-8-sulfonic), an extrinsic fluorescent probe, showed that the ANS have strong interaction at acid pH (below 5.0). This is indicative of the exposition of hydrophobic regions in the protein, leading to a possible interaction with lipid membranes. As the ricin A-chain, rPAC probably is able to interact with membranes. Although, this process happens in a specific pH, probably followed by protein conformational changes.