PURIFICATION OF CHROMOPLAST_ASSOCIATED PROTEINS FROM STORAGE ROOT OF CASSAVA (*MANIHOT ESCULENTA* CRANTZ)

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Brazil is the second larger world producer of cassava. Cassava is used for fresh consumption and industrial propose. Pigmented cassava storage root is only commercialized in Amazon in local market mostly without much industrial processing. To develop industrial process with pigmented cassava, it desirable to understand how the pigment is stabilized in nature. The major goal of this research is to understanding the carotenoid-protein interaction as a way to explore this stabilization. Our objective in purifying carotenoid-associated protein is to identify the β-carotene specific binding protein. This work reports the isolation and partially purification of a β-carotene-proteins complex as a preliminary work for sequence proteins involved in this interaction. Spontaneous cassava mutations (accumulating only β-carotene) with high proteins was used to extract protein from chromoplast enriched suspension. Size exclusion chromatography (Sepharose Cl-6B) was used to separate the non denatured pigment-protein complex and RP_HPLC (Vydac C18-TP) to identify the protein and pigment present in a denatured fraction of the peak 1 derived from SEC. Six protein peack from the RP_HPLC are currently being analyzed and protein sequenced.

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