

Activity Protein Fraction of *Acalipha indica* to Cleavage DNA

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ABSTRACT

One of the examination to know potency of a crop can be developed to become anticancer is given the existence of Ribosome Inactivating Proteins (RIPs). A method to identify existence of RIP is cleavage of DNA. Leaf and flower extract of *Acalipha indica* have activity cleavage DNA at 93, 63 $\mu\text{g}/\mu\text{l}$ and 51, 47 $\mu\text{g}/\mu\text{l}$. In this research, leaf and flower extract purified to get protein fraction and then tested by cleavage DNA method. The aim of this research wants to know protein fraction activity of leaf and flower *Acalipha indica* to cleavage DNA. Leaf and flower extract purified by Ammonium Sulphate to get Fraction-10, Fraction-20, Fraction-40, Fraction-60, Fraction-80 and Fraction-100 saturation. All of protein fraction added by DNA pUC 19. Then, DNA and protein fraction was electrophoresis. Obtained data from result of activity test cleavage of DNA analyzed qualitative by perceiving 3 criterions, that is: DNA super coil attenuating, thick of nick circular DNA and forming of linear DNA. All of protein fraction from leaf and flower can cleavage DNA. Result of research indicates that Protein Fraction-80 from leaf at 11, 58 $\mu\text{g}/\mu\text{l}$ and Protein Fraction-60 from flower of *Acalipha indica* at 1.51 $\mu\text{g}/\mu\text{l}$ have activity to cleavage DNA be nick circular and linear. Protein fractions from leaf and flower of *Acalipha indica* have activity like RIPs. Flower fraction more active than leaf. Both flower and leaf proteins fractions have possibility developed become anticancer.

Keywords: DNA, Protein Fraction, *Acalipha indica*