

## ABSTRACT

Squalene consist six 2-methyl-2-pentene units, that every unit as quaternary carbons can release electron easely ( electron donate ) suspiciused had activity to scavenge free radical and antilipidperoxide . The scavenger free radical activity of squalene was tested against a solution of diphenyl picryl hidrazyl radical and the decoloration determined with UV-Vis spectroscopic at  $\lambda = 517$  nm. The anti-lipoperoxidative activity was tested against a solution of *ter*- butyl hydroperoxide ( *ter*-BHP ) that induced lipid peroxidation in rat liver homogenate and the yield of TBARS = Thio Barbituric Acid Rreactive Substances ( Malondialdehyde-thiobarbituric acid = MDA ) determined with spectrofluorometric at  $\lambda_{Em} = 539$  nm;  $\lambda_{Ex} = 549$  nm.

The specific activity antiradical DPPH ( % antiradikal activity per ppm ) by isolated and standard squalene were lower than  $\alpha$ - tocopherol as nature antioxidant respectively  $0,00031 \pm 0,00014$  %/ppm ;  $0,00405 \pm 0,00006$  % and  $13,14867 \pm 1,04648$  % / ppm. The specific activity antilipoperoxidation by isolated and standard squalene were lower than  $\alpha$ - tocopherol respectively  $0,2884 \pm 0,0223$  % / ppm;  $0,5841 \pm 0,09945$  % / ppm and  $1,0479 \pm 0,1652$  % / ppm

The results suggest that isolated and standard squalene scavenged DPPH radical activity and anti-lipoperoxidation activity were lower than  $\alpha$ -tocopherol.

Keywords : squalene ;  $\alpha$ - tocopherol; antioxidant ; rat liver; lipid peroxidation ;  
DPPH ; *ter*-BHP