



Announcing DRAC Value Testing for Fruits, Extracts & Dosage forms

A. Oxygen Radical Absorption Activity Capacity (ORAC) is a tool to measure the antioxidant activity from natural products using florescein as a fluorescence probe (Cao et al., 1995).

Basically, antioxidants can be classified by their solubility into two groups:

- (1) Water-soluble antioxidants, such as Vitamin C and simple phenolic compounds
- (2) Oil soluble antioxidant, mainly Vitamin E and carotenoids

Oil soluble antioxidant plays an important role in a wide spectrum of biochemical and physiological processes. They have higher level of bioavailability than water-soluble antioxidants. While oil-soluble antioxidant can be easily penetrated through the lipoprotein cell membrane, the water soluble-antioxidants do not accumulate in the body and are excreted in the urine.

Cyclodextrin is used to enhance the solubility of fat-soluble antioxidants in aqueous solutions. Cyclodextrinas contains a relatively lipophilic central cavity and hydrophilic outer surface.

B. Lipid Peroxidation Assay - determine the antioxidant activity according to the degree of inhibition of hemoglobin-catalyzed peroxidation of linoleic acid.

Both methods described above measure the antioxidant activity. While ORAC is a chemical system, the Lipid Peroxidation Assay approaches closer to what happen to a human system.

ABC Testing, Inc. offers both assays on routine basis at competitive prices