Comparison of Astaxanthin's Singlet Oxygen Quenching Activity with Common Fat and Water Soluble Antioxidants

Astaxanthin has exceptional antioxidant activity to combat singlet oxygen when compared to other antioxidants. In particular, Astaxanthin can be used to defend against singlet oxygen damage for eye and skin health, which are especially susceptible to UV damage and aging effects.

Singlet oxygen is an active oxygen species generated in human skin by exposure to ultraviolet radiation (UV) that causes skin damage and eye damage. In this study, Astaxanthin extracted from *Haematococcus* microalgae powerfully quenched singlet oxygen. Results show that the quenching effect of Astaxanthin is 800 times greater than coenzyme Q10. Astaxanthin was also about 75 times greater than alpha lipoic acid, about 550 times greater than green tea catechins and about 6000 times greater than Vitamin C.



Nishida, Y, Yamashita, E, and Miki, W. Results presented at the 21st annual Meeting on Carotenoid Research held at Osaka, Japan on September 6 & 7, 2007.