

O.R.A.C. Value

O.R.A.C. stands for Oxygen Radical Absorbance Capacity. It is an experimental measurement developed at Tufts University that measures the antioxidant potential of foods and nutraceuticals, including phenolics, anthocyanins, etc. The key word is potential. Obviously, when applied to whole foods, such as berries, fruits and vegetables the issue of bioavailability is well established and can be taken for granted. The difficulty comes is applying the measurement to nutraceuticals, especially vitamin supplements. As we know, the potential is there, but bioavailability may not be assured. Citing a high ORAC value without corresponding proof of bioavailability is relatively meaningless. That's why we do not focus on ORAC - it's the easy just half of the story and still an experimental measure. Only Juice Plus+ has worldwide, independent, scientific studies.

Oxygen Radical Absorbance Capacity (ORAC) is most often measured in a test tube, although there are some research labs that are beginning to perform this testing on plasma (for example the recently published Juice Plus+ paper from the University of Florida. Most commercial products making ORAC claims use the test tube method and typically only measure the antioxidants present in the aqueous (water) phase, missing any molecules that have antioxidant activity but are in the lipid phase, for example Lycopene and Beta-carotene. It would be easy to formulate a product with a high test tube ORAC, but it is unclear what this means in an intact biological system because no studies have been done monitoring any health benefits from defined ORAC "number" intake over any period of time. In other words, ORAC measures "potential", but is no guarantee of biological activity. We have clinical studies proving bioavailability rather than in vitro (literally "in glass") research to support the benefits of Juice Plus+®, along with over a dozen years of use around the world. Juice Plus+® has been shown over and over to increase known antioxidants like Vitamin C, Vitamin E, Alpha-tocopherol and Beta-carotene in blood circulation, and has been shown to decrease markers of oxidation as well. We feel these measurements are more reliable than an isolated ORAC "number".

Best regards,
Carlos F. Madero, Ph.D.
Director, Technical Support, NSA Inc.