

The Mode of Action of L-Ascorbic Acid and its Cascade

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Summary

Dehydro-L-ascorbic acid, the oxidation form of L-ascorbic acid, is very unstable in an aqueous solution and may be transformed and degraded into unstable compounds. These products, called the ascorbate cascade, exhibit different absorption spectra and reducing activities. They were analysed by using an ion-paired high performance liquid chromatography equipped with a multiwavelength UV monitor and an electrochemical detector. The occurrence of these transformed products was demonstrated in some degenerative tissues and in the course of storage and processing of food stuffs. The biochemical significance is discussed in terms of indispensable functions of L-ascorbic acid.