Synopsis of Original Research Paper

Immnostimulatory activity of stable ascorbates and it's mechanism

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A stable form of ascorbate, AA-2P significantly enhanced anti-SRBC antibody productions by cultured splenocytes at a concentration of 0.5 mM, as had been previously described with AA-2G, whereas AA-2S was without effect. In this culture system, it was confirmed that AA-2G and AA-2P were cleaved by lymphocyte's α-glucosidase and phosphatase, respectively, to release intact ascorbic acid. We also demonstrated that AA-2P synergistically enhanced the antibody responses with nerve growth factor (NGF) by T-cell depleted splenocytes, as had been previously reported with AA-2G, whereas AA-2S did not. SRBC-induced expression of NGF receptor on B cell surface was stimulated by AA-2P as well as AA-2G. These results indicate that AA-2G or AA-2P, as an ascorbate source, may be a useful tool for finding new biological actions and for elucidation of their mechanisms.