

RESEARCH LETTERS

Effects of Drinking a Water Product with Anti-Oxidant Activities *In Vitro* on the Blood Levels of Biomarker Substances for the Oxidative Stress

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Abstract

The *in vivo* effects of drinking a water product, which had been confirmed to have antioxidant activities *in vitro*, were preliminarily studied by monitoring the blood concentrations of oxidative stress marker substances in the two group subjects who ingested the same quantity of the water product and a tap water solution during the same time. The results indicated that hydrogen gas and reductive vanadium ions as the components responsible for the antioxidant activities *in vitro* cannot enhance the scavenging ability for reactive oxygen species *in vivo* after being drunk and absorbed into the human body, although it was suggested that an ingestion of a greater quantity of water than usual gives a slight reduction, overall, in the oxidative stress.

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