

Investigation on Involvement of Reactive Oxygen Species in Dermatitis Developed in SOD1-Knockout Mice

Junichi Fujii

Department of Biomolecular Function, Major of Environmental Life Science, Graduate School of Medical Science, Yamagata University

Superoxide dismutase (SOD) is a principal enzyme to protect cells from cytotoxic effects of reactive oxygen species. We first examined mechanism of singlet oxygen-induced cell damage and also established detection systems for oxidized Trp and glutathionylated proteins. SOD1-deficient mice showed accelerated aging, such as inflammation in facial skin. Keratinocyte from SOD1-deficient mice was less capable of adhesion and proliferation in primary culture probably due to elevated oxidative stress.