Analysis of macromolecular substances involved in the process of dehydration in a terrestrial cyanobacterium, *Nostoc* sp. HK-01.

*Tomoko Abe[1], Yuka Takazawa[1], Ryusuke Honda[1], Kouga Ichikawa[1], Natsumi Yoshida[1], Shunta Kimura[2,4], Hiroshi Katoh[3], Kaori Tomita-Yokotani[2]

1. School of Science and Engineering, Tokyo Denki University, 2. Faculty of Life and Environmental Sciences, University of Tsukuba, 3. Mie University, 4. Graduate School of Agricultural and Life Sciences, The University of Tokyo

*Nosto*c sp. HK-01 is one of terrestrial cyanobacterium having a tolerance to desiccation stress and it has ability of usefulness as a food. It is thought that *Nosto*c sp. HK-01 can be used for bio-chemical circulation in a closed ecosystem, including space. Here, we aim at exploring macromolecular substances that would play an important role in the desiccation stress response.

In this study, to detect intracellular proteins of *Nostoc* sp. HK-01 during dehydration, proteins extracted from the cells on the way the dehydration were applied to SDS-polyacrylamide gel electrophoresis, initially. In the course of dehydration of the cells, the expression level of some proteins changed. Some of them were insoluble proteins, and others were soluble proteins. These proteins could be involved in desiccation tolerance of *Nostoc* sp. HK-01.

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