

hNck2 SH3 domain の構造的特長

Structural features of hNck2 SH3 domain

Yoshitaka Matsumura¹, Kaoru Ichimura¹ Tsutomu Matsui² Jianxing Song³,
Hiroshi Kihara¹

¹Department of Physics, Kansai Medical University,

²Bio-SAXS at the Stanford Synchrotron Radiation Lightsource (SSRL), Stanford
University, Stanford, California 94305, USA

³Department of Biochemistry, Yong Loo Lin School of Medicine and
Department of Biological Sciences, National University of Singapore

We have done small angle X-ray scattering (SAXS) experiments of hNck2 SH3 domain at Bio-SAXS at the Stanford Synchrotron Radiation Lightsource (SSRL). We investigated protein concentration dependence and pH changes. The results indicated that when the protein concentration is very low, the protein is monomer. In contrast, when the protein concentration is higher, the protein forms dimer. It is known that hNck2 SH3 domain takes equilibrium α -helix-rich intermediate at acidic pH. In the present study, it is suggested that the protein takes monomer at acidic pH, and the protein changes from monomer to mixture of monomer and dimer with the increase of pH. We will report and discuss the structural features of hNck2 SH3 domain at the poster.