C-12

Crystal Structure of PAS factor from *Vibrio vulnificus*

Jun Hyuck Lee, Seong-Hwan Rho, Young Jun Im, Mun-Kyoung Kim, Gil Bu Kang, Young Ran Kim[1], Joon Haeng Rhee[1] and Soo Hyun Eom

Department of Life Science, Kwangju Institute of Science & Technology, Gwangju 500-712, Korea

[1]Department of Microbiology, Chonnam National University Medical School, Gwangju, 500-190, Korea

The PAS factor, whose gene has been cloned from *V. vulnificus*, is a protein secretion factor. Although the role of the PAS factor in *Vibrio* is still unknown, it may be involved with the bacterial protein secretion. The PAS factor is a 76 amino acid polypeptide, and its expression in *E. coli* cells makes the host cell membrane leaky, resulting in the excretion of periplasmic proteins into the culture medium. Highly expressed PAS factor is harmful to the cell, this may be due to a disruption of the membrane structure or function.

Here, we present the crystal structure of PAS factor determined 1.9 Å resolution. This structure has four helix bundle motif. From structural information, we are trying to illucidate the biological function of PAS factor.