

# Crystal Structure of PDZ Domain of KIAA0858 (LIM), from *Homo sapiens*

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KIAA 0858 (LIM), a zinc finger domain containing protein is consisting of 1236 residues and locating in brain of *Homo sapiens*. The roles of this protein have been elucidated yet. Searching the amino acid sequence reveals that the residues from Q1037 to K1126 are forming a PDZ domain (MS0793). In this study, MS0793 was produced using cell-free protein synthesis system, purified and a high order crystal was obtained using sitting-drop vapor diffusion method. X-ray diffraction data collection was carried out using beamline PF\_BL16A. Crystal structure of MS0793 was determined at 1.46 Å resolution finally.

MS0793 is containing five  $\beta$ -strands and two  $\alpha$ -helices. All of the  $\beta$ -strands are anti-parallel  $\beta$ -strand forming overall Greek key  $\beta$ -barrel structure (Figure 1). The connections between  $\beta$ 3 and  $\beta$ 4 and between  $\beta$ 4 and  $\beta$ 5 are helix  $\alpha$ 1 and  $\alpha$ 2, respectively. Two metal binding sites were confirmed based on the electron density map and crystallization solution. Two Ni (II) ions were modified in the structure model because the crystallization solution was containing 10 mM NiCl<sub>2</sub>. Two Ni (II) ions are locating the two metal binding sites and coordinating with the residues D1085 and H1116, respectively. These results support MS0793 might play roles of zinc finger domain of KIAA 0858 (LIM).

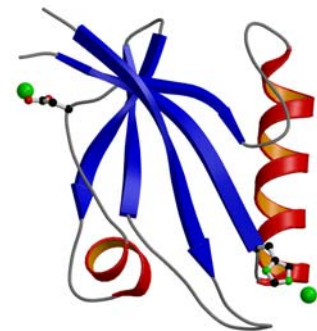


Figure 1. Structure of MS0793 is shown using ribbon model.

## Reference

Nagase, T. et al. *DNA Res.* **5**, 355-364 (1998)