

W0514

SP0731 from *Streptococcus pneumoniae* is a Member of the VOC Superfamily. N.E.C. Duke, H. Li, F. Collart, A. Joachimiak, Structural Biology Center and Midwest Center for Structural Genomics, Biosciences, Argonne National Laboratory, 9700 South Cass Ave., Bldg 202, Argonne, IL 60439, USA.

The vicinal oxygen chelate (VOC) superfamily is composed of structurally related proteins containing paired β - α - β - β motifs. SP0731, a conserved small protein from *S. pneumoniae*, also belongs to this superfamily. A SeMet derivative of the 115 amino acid protein was crystallized in space group P65 ($a=97.62$ Å, $b=97.62$ Å, $c=55.15$ Å). The structure was solved using SAD data collected at the 19BM beamline of the Structural Biology Center. Structure solution, phasing, and density modification were facilitated with the HKL2000_PH suite, and the model was refined to 2.3 Å using Refmac. Comparisons with other known protein structures in the PDB proves that structural genomics projects have now located several members of this family, though the structural homologies are not evident at the sequence level. Comparisons of these structures to known VOC superfamily representatives will be presented, along with similarities and differences in possible functional sites.

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