

## Crystallization and X-ray crystallographic analysis of recombinant TylP, a putative $\gamma$ -butyrolactone receptor protein from *Streptomyces fradiae*

### ABSTRACT

TylP is one of five regulatory proteins involved in the regulation of antibiotic (tylosin) production, morphological and physiological differentiation in *Streptomyces fradiae*. Its function is similar to those of various  $\gamma$ -butyrolactone receptor proteins. In this report, N-terminally His-tagged recombinant TylP protein (rTylP) was overproduced in *Escherichia coli* and purified to homogeneity. The rTylP protein was crystallized from a reservoir solution comprising 34%(v/v) ethylene glycol and 5%(v/v) glycerol. The protein crystals diffracted X-rays to 3.05 Å resolution and belonged to the trigonal space group P3121, with unit-cell parameters  $a = b = 126.62$ ,  $c = 95.63$  Å.

**Keyword:** *Streptomyces fradiae*; Recombinant TylP protein;  $\gamma$ -butyrolactone; GBL; Transcription factors; Tylosin