

Regulation and interaction between human hepatoma-derived growth factor (HDGF), nucleolin and SMYD1

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Abstract

From previous data, we have got the structure of N-terminal PWWP domain of HDGF with 10 bp SMYD1. And we found out the domain swapping helps to stabilize the complex structure of PWWP domain and SMYD1 DNA. Nucleolin (NCL), a multifunctional phosphoprotein, has interaction with HDGF and may involve in the regulation of HDGF function. In order to understand the relationships of HDGF, NCL and DNA, we try to grow complex crystal of protein, NCL and DNA for structure determination. After we solve the complex structure, the regulation of HDGF will be more clear.