

Peptide Tags That can Control Association and The application to the non-column protein purification

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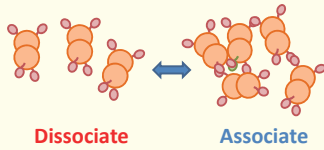
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Starting Point of This Method

Found a association-controllable peptide tag



Addition of the tags to the protein leads to association.



Key Points of This Method



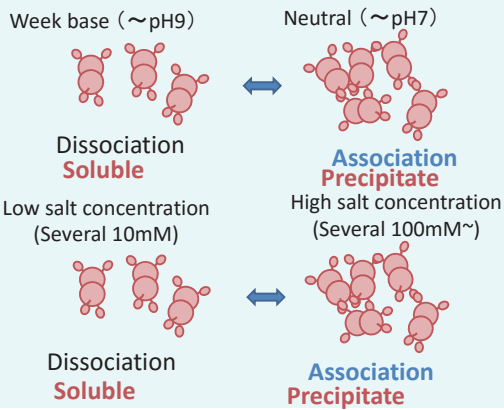
Tagged Target Protein
Dissociation => **High Solubility** at low salt conc., or weak alkaline, or surfactant

controllable Tag-Tag interaction



Association : Oligomerized => **Low Solubility**

Solubility of Tagged Protein



Purification of Recombinant GST

Column



Expensive, Time consuming

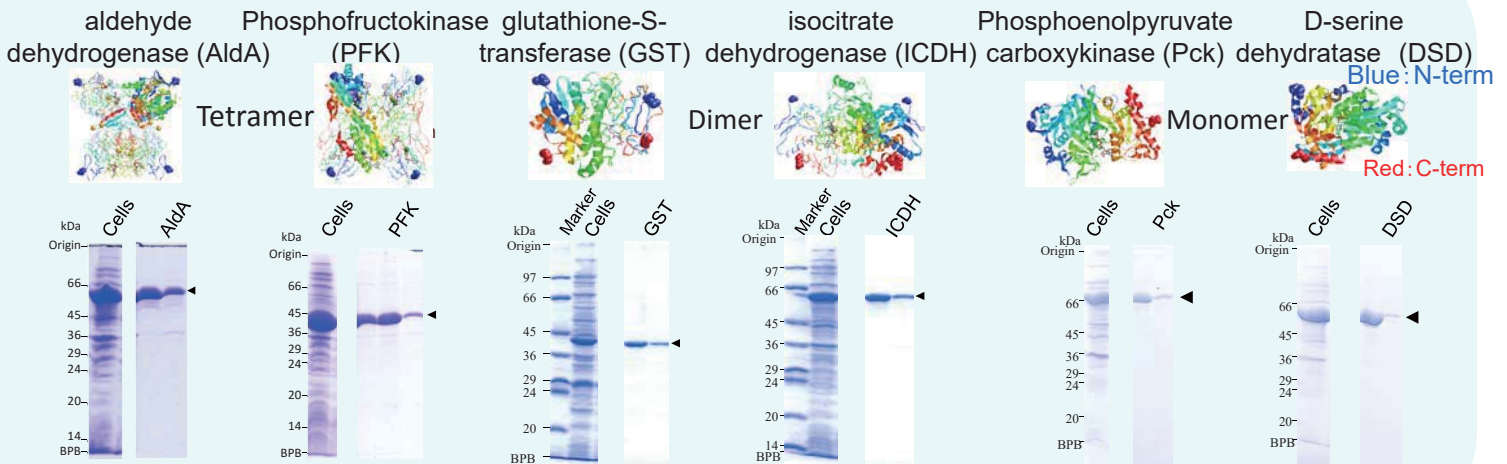
Procedure

E. coli cells
↓ cell rupture
Homogenate
↓ centrifuge
Supernatant
↓ Wash with buffer/
Centrifuge
Washing solution
Ppt
↓ Extract/
Centrifuge
Ppt
Extract (Purified protein)

Equipment
Cell Disruptor and Centrifugal separator

Feature
• Rapid
• Low cost

Examples



Purity of the enzyme: 90-96% (SDS-PAGE), Recovery of enzyme activity 87-91%

Patent pending: Application number 2014-185689