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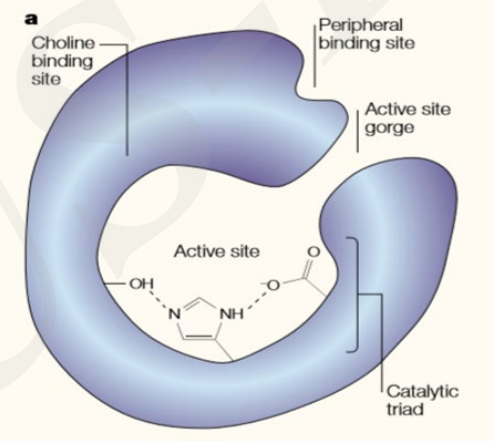
Expression of *Drosophila melanogaster* acetylcholinesterase (*DmAChE*) gene splice variants in *Pichia pastoris* and evaluation of its sensitivity to organophosphorus pesticides

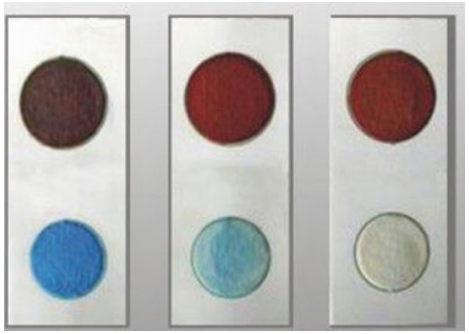
Key words: acetylcholinesterase; Pichia pastoris; enzyme activity determination; pesticide sensitivity

Research Summary

This article focuses on the expression of *Drosophila melanogaster* acetylcholinesterase splice variants (*DmAChE-like*) in *Pichia pastoris*, and has conducted the following research:

- **Enzyme activity determination**
- **Tricine-SDS-PAGE**
- **Optimal pH and temperature test**
- **Pesticide sensitivity test**

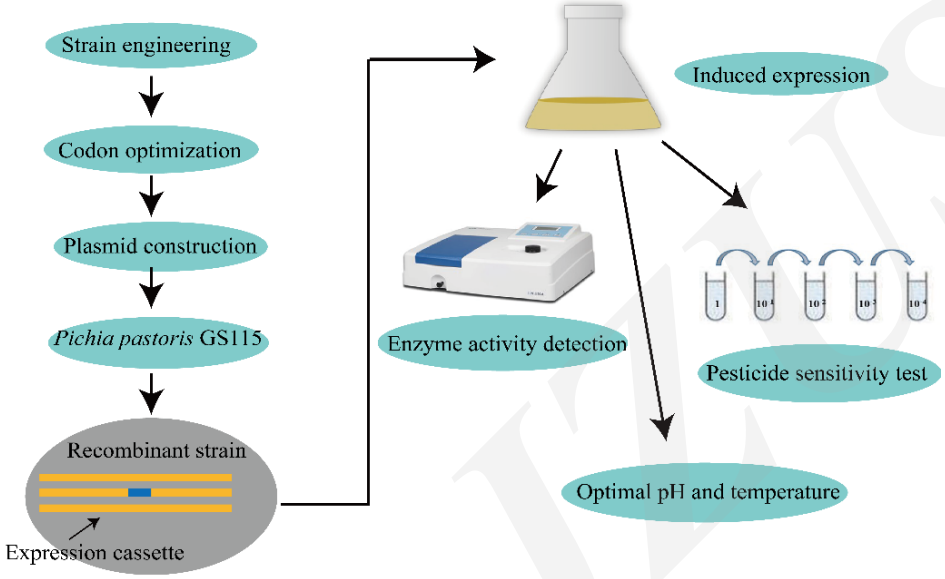




Pesticide Quick Test Card

Innovation points

- **A new gene (*DmAChE-like*) was discovered and the genetically engineered strain GS115-pPIC9K-*DmAChE-like* was constructed**



Graphical summary diagram of GS115-pPIC9K-*DmAChE-like* strain construction and subsequent expression and detection

- **Proved that DmAChE-like has acetylcholinesterase activity.**

- **Found that DmAChE-like is sensitive to most selected organophosphorus pesticides**

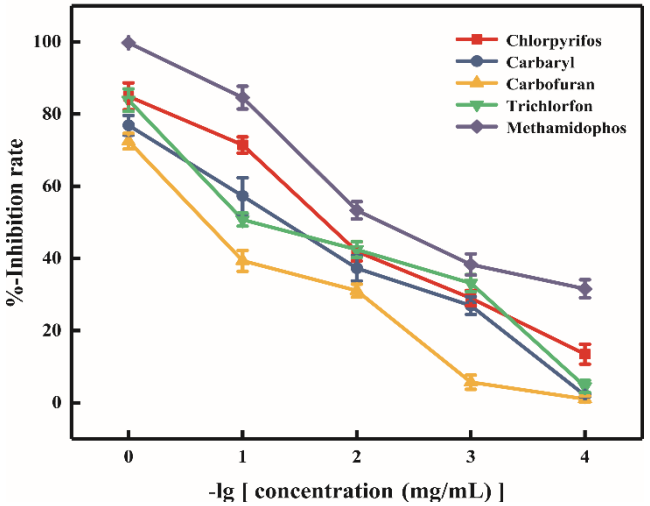


Fig.9-b