Cite this as: Pei LIU, Haiyu LONG, Shuai HE, Han CHENG, Erdong LI, Siyu CHENG, Mengdi LIANG, Zhengwei LIU, Zhen GUO, Hao SHI. Unveiling the innovative green synthesis mechanism of selenium nanoparticles by exploiting intracellular protein elongation factor Tu from *Bacillus paramycoides*[J]. Journal of Zhejiang University Science B, 2024, 25(9): 789-795.
http://doi.org/10.1631/jzus.B2300738

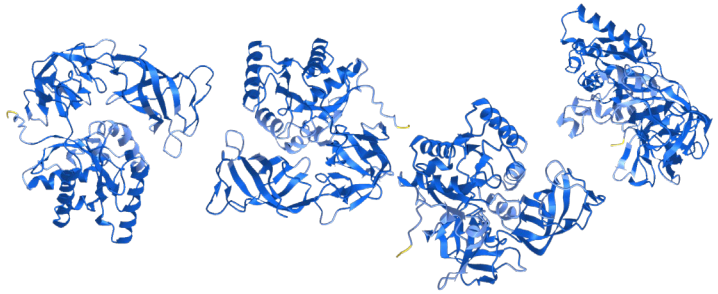
Unveiling the innovative green synthesis mechanism of selenium nanoparticles by exploiting intracellular protein elongation factor Tu from *Bacillus paramycoides*

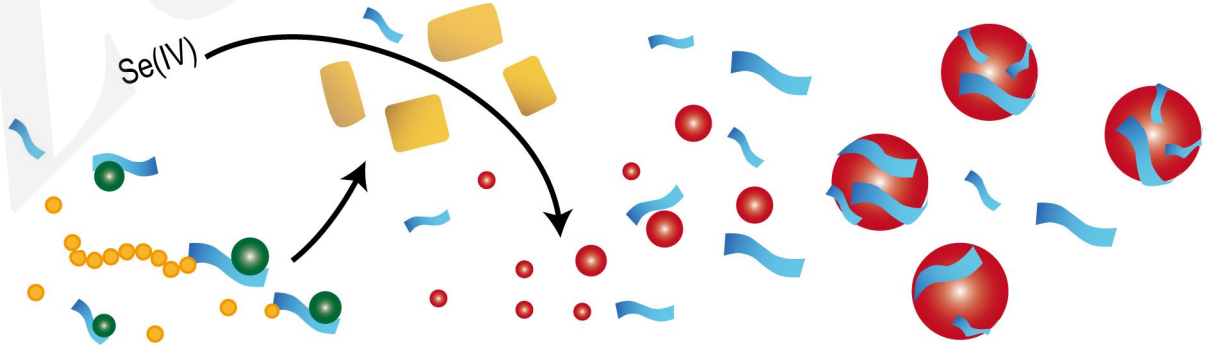
Key words: **Selenium nanoparticles (SeNPs), *Bacillus paramycoides*, Elongation Factor Tu (EF-Tu), Selenite reduction, Green synthesis mechanism**

Research Summary

This study mainly focused on the green synthesis mechanism of selenium nanoparticles by EF-Tu extracted from *Bacillus paramycoides*, and summarized the main results in the following aspects:

- **Characteristic of SeNPs**
- **Purify and identify the suface proteins of SeNPs**
- **Location of selenite reduction**
- **Possible mechanism**





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Innovation points

- **High efficiency in selenite biotransformation**

- **Rare reduction process that do not require NADPH/NADP as electron donors**

- **Identify of unique reduction-related proteins**

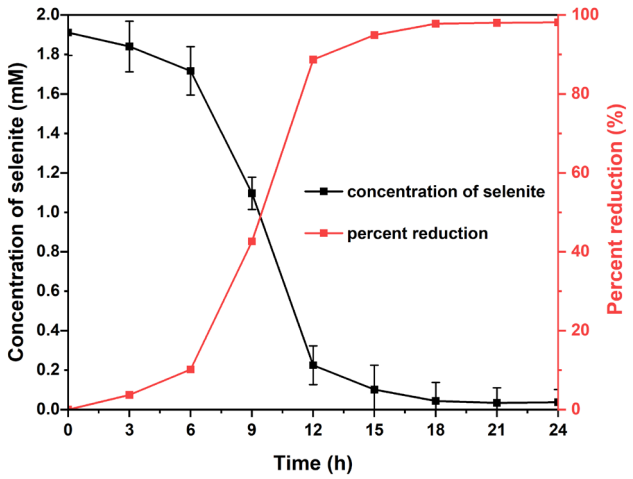


Figure S1(c)



Protein Peptides LC-MS/MS Search in protein database EF-Tu

HZUS-B

Innovation points

- **Innovative synthesis mechanism**

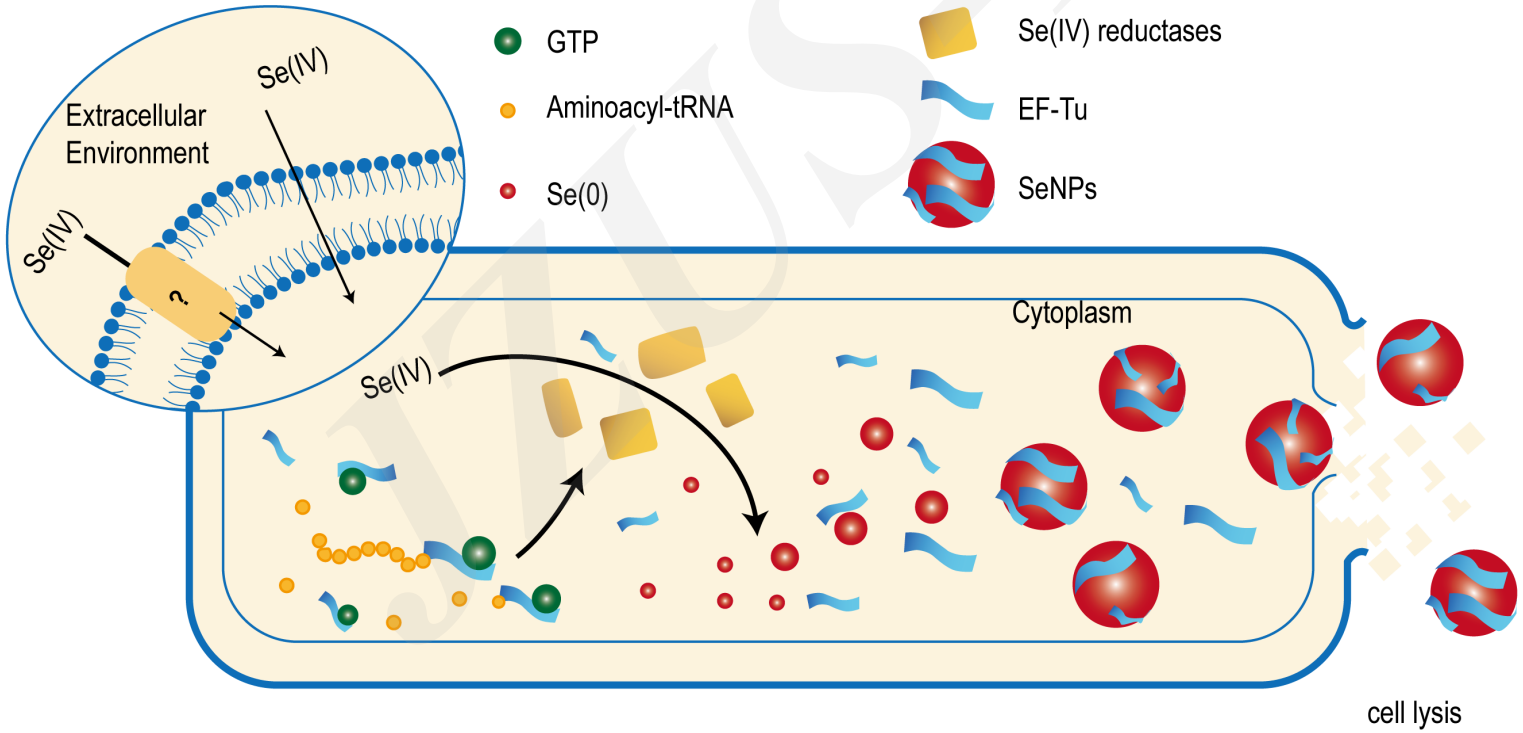


Figure 3