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Title: Improvement of a newly cloned carbonyl reductase and its application to biosynthesize chiral intermediate of duloxetine

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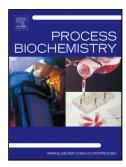
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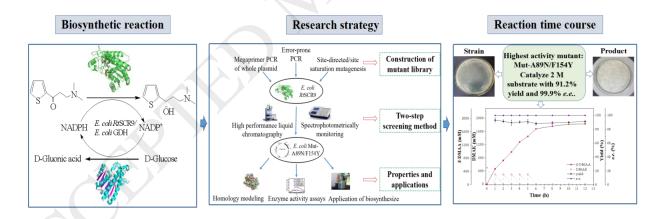
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Graphical abstract



Highlights

- A carbonyl reductase was used to synthesize intermediate of duloxetine.
- The Mut-A89N/F154Y with highest activity was obtained after screened.
- 2 M of substrate was bioreduced to prepare product with yeild >91.2% and e.e.> 99.9%.

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