

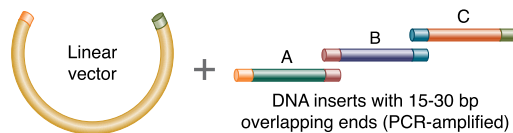
# NEBuilder<sup>®</sup> HiFi DNA Assembly Cloning Kit

- 15-60分鐘完美組合2-6段以上DNA片段，方向及順序皆隨心所欲。
- 透過PCR及簡單的反應，輕鬆解決長片段或多片段等基因構築的難題。
- 將構築需求輸入NEB線上軟體，即可得到建議的primer序列進行PCR。
- PCR產物無須純化可直接反應；反應後無需純化可直接Transformation。
- 自動消除5'及3'端mismatch，操作便利且精確度高。
- 可搭配任何Vector使用，且不需遷就於酵素切位的限制。
- 可搭配DpnI使用，於質體上一次製造多個定點突變。
- 可單獨選購反應Master Mix，不強迫搭售Competent Cell。

## DNA Preparation

### From:

- PCR
- Restriction enzyme digestion
- Synthetic DNA (e.g., gBlocks)

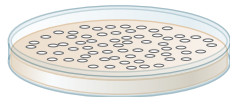


## NEBuilder HiFi DNA Assembly Master Mix

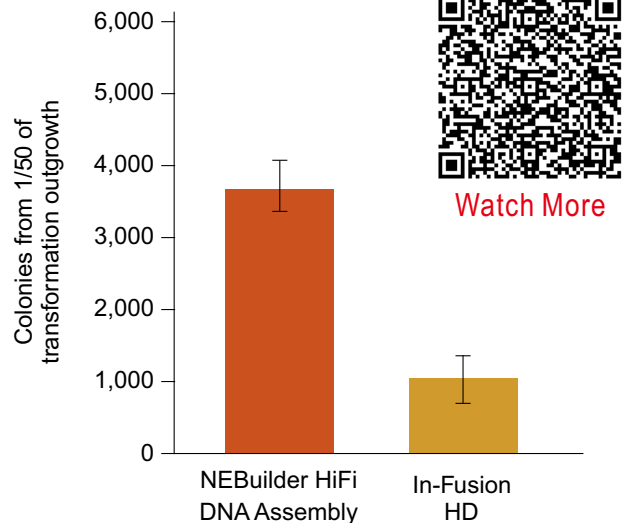
### Single-tube reaction

- Exonuclease chews back 5' ends to create single-stranded 3' overhangs
- DNA polymerase fills in gaps within each annealed fragment
- DNA ligase seals nicks in the assembled DNA

Incubate at 50 C for 15-60 minutes



## Transformation



Catalog #	Products	Kit Components
E5520S	NEBuilder HiFi DNA assembly Cloning Kit (10)	Master mix, NEB 5-alpha Competent cell, SOC outgrowth medium, Positive Control, Transformation Control Plasmid
E2623S	NEBuilder HiFi DNA assembly bundle for large fragment (20)	Master mix, NEB 10-Beta Competent cell, SOC outgrowth medium, Positive Control, Transformation Control Plasmid
E2621S/L/X	NEBuilder HiFi DNA assembly Master Mix (10/50/250)	Master mix, Positive Control