



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

DNA assembly와 cloning에 사용되는 NEBuilder<sup>®</sup> HiFi DNA Assembly는 기존의 Gibson Assembly<sup>®</sup>보다 업그레이드 된 제품으로 5'과 3'의 enzyme mismatch가 있어도 assembly가 가능하고 오류률도 낮습니다.

NEBuilder<sup>®</sup> HiFi는 competent *E.coli*가 포함된 cloning kit와 포함되지 않은 Master Mix form으로 제공되어, 쉽고 빠르게 seamless cloning이 가능할 뿐만 아니라, 다양한 DNA assembly 방법으로 이용됩니다.

- NEBuilder HiFi DNA Assembly를 이용한 다양한 DNA assembly 방법!

## 2-fragment assembly



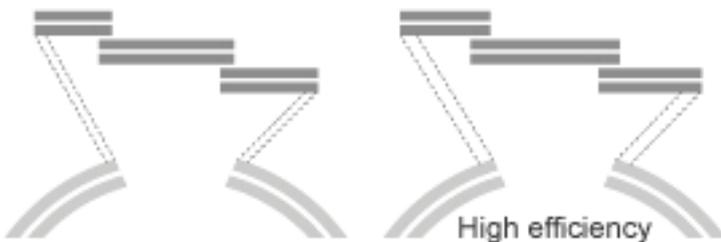
## ssOligo & dsDNA assembly



## 4-fragment assembly

15-bp overlap

25-bp overlap



## Annealed-oligo assembly

Sticky end

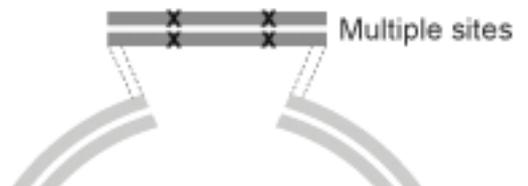
Blunt end



## 3'- and 5'-end mismatch assembly



## Site-directed mutagenesis



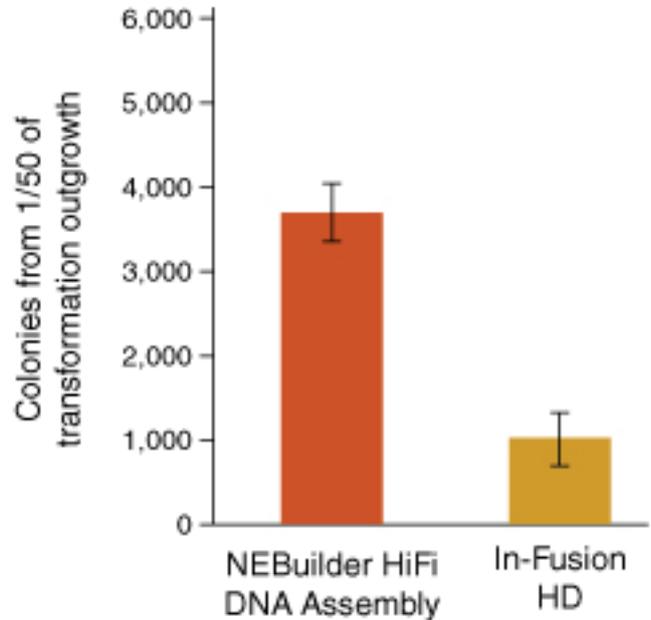
## FEATURED PRODUCT:

# NEBuilder<sup>®</sup> HiFi DNA Assembly를 선택해야 하는 4가지 이유!

- ① Screen and resequence fewer constructs with virtually error-free, high-fidelity assembly
- ② Use in successive rounds of assembly, as NEBuilder HiFi removes 5'- and 3'-restriction enzyme mismatches
- ③ Bridge two dsDNA fragments with a synthetic ssDNA oligo (e.g., linker insertion or gRNA libraries)
- ④ Product is covalently sealed and will not fall apart during PCR



NEBuilder HiFi delivers higher colony yield than In-Fusion<sup>®</sup> HD



Two-fragment reactions were set up using the positive control from the In-Fusion HD Cloning Kit (ClonTech Takara Bio USA, Inc), according to recommended protocols. 2  $\mu$ l of assembly reaction was transformed into supplied competent cells. 1/50 of outgrowth was spread on an ApR plate.

## ● 주문 정보

Cat #	Product	Size
E2621	NEBuilder <sup>®</sup> HiFiDNA Assembly Master Mix (without competent cell)	S/L/X (10/50/250 rxn)
E5520	NEBuilder <sup>®</sup> HiFiDNA Assembly Cloning Kit (with competent cell)	S (10 rxn)
E2623	NEBuilder <sup>®</sup> HiFiDNA Assembly Bundle for Large Fragments <b>NEW!</b> (with competent cell)	S (20 rxn)



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한국 공식 대리점