

The Next Generation of DNA Assembly and Cloning.

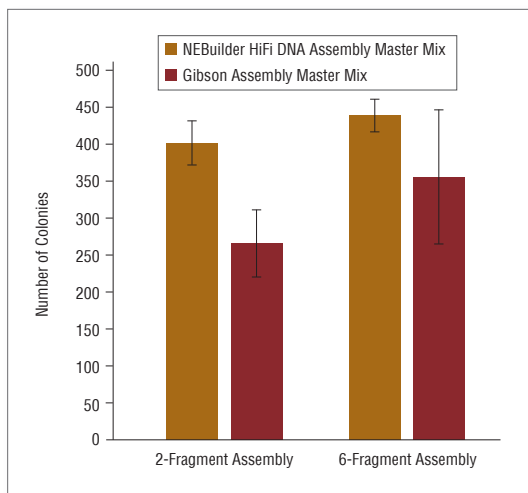
NEBuilder[®] HiFi DNA Assembly

NEBuilder HiFi DNA Assembly enables virtually error-free joining of DNA fragments, even those with 5' and 3' enzyme mismatches. Available with and without competent *E. coli*, this flexible kit enables simple and fast Seamless Cloning utilizing a new proprietary high-fidelity polymerase. Find out why NEBuilder HiFi is the next generation of DNA assembly and cloning.

Benefits over Gibson Assembly[®] Master Mix

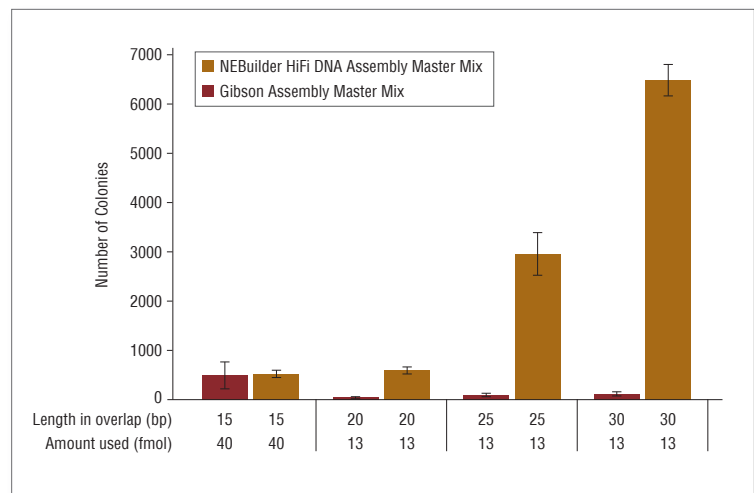
- Enjoy less screening/re-sequencing of constructs, with virtually error-free, high-fidelity assembly
- Join DNA fragments together more efficiently, even with larger fragments or low DNA inputs
- Use NEBuilder HiFi in successive rounds of assembly, because it removes 5' and 3' restriction enzyme mismatches
- Bridge two double-stranded fragments with a synthetic single-stranded DNA oligo for simple and fast construction (e.g., linker insertion or gDNA libraries)
- Switch from other systems easily, as NEBuilder HiFi is compatible with Gibson Assembly-designed (and other) fragments
- No licensing fees from NEB

NEBuilder HiFi DNA Assembly Master Mix offers improved efficiency and accuracy over Gibson Assembly with different numbers of fragments.



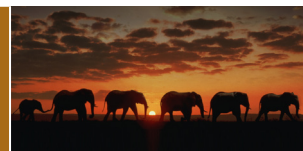
Reactions were set up in a 2- and 6- fragment assembly reaction according to recommended reaction conditions.

NEBuilder HiFi DNA Assembly Master Mix offers improved efficiency and accuracy over Gibson Assembly with lower amounts of DNA by increasing overlaps.

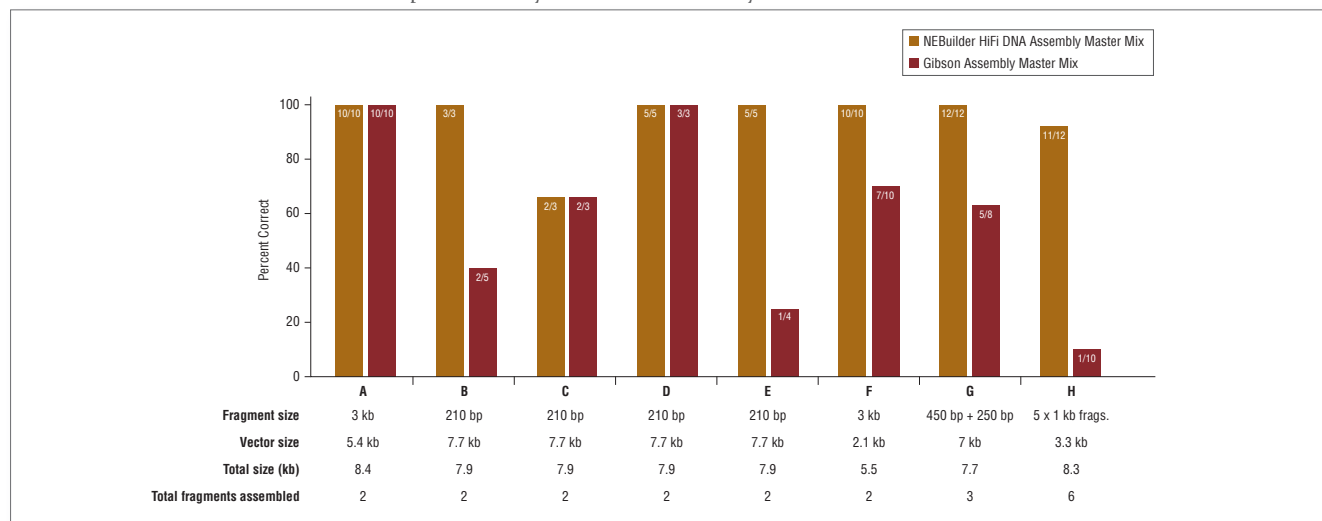


Reactions were set up in a 4- fragment assembly reaction according to recommended reaction conditions. Amount of DNA and size of overlap is shown.

NEBuilder[®] HiFi DNA Assembly

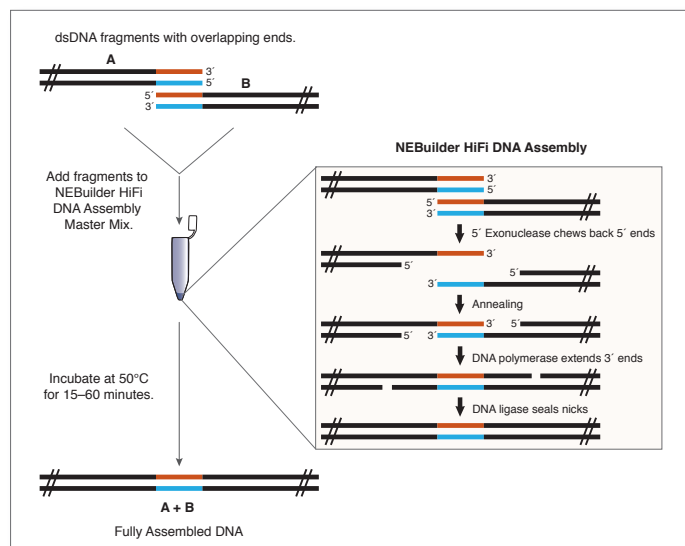


NEBuilder HiFi DNA Master Mix offers improved fidelity over Gibson Assembly Master Mix.



Fidelity of assembled products was compared between NEBuilder HiFi DNA Assembly Master Mix (NEB #E2621) and Gibson Assembly Master Mix (NEB #E2611). Experiments were performed using various fragment and vector sizes following suggested protocols. Experiments B through E vary because sequences of fragments are different. Experiments F and H were performed with fragments containing 3' restriction enzyme mismatches.

NEBuilder HiFi Workflow



Need help designing primers for DNA assembly?



Try NEBuilder[®] Assembly Tool at NEBuilder.neb.com

Visit NEBuilderHiFi.com to learn more about *The Next Generation of DNA Assembly and Cloning*

PRODUCT	NEB #	SIZE
NEBuilder HiFi DNA Assembly Master Mix	E2621S/L/X	10/50/250 rxns
NEBuilder HiFi DNA Assembly Cloning Kit	E5520S	10 rxns

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