A DNA ASSEMBLY MIX AND METHOD OF USES THEREOF

ABSTRACT

Disclosed is a DNA assembly mix, comprising a 3'-5' exonuclease enzyme which is XthA; and a buffer. Also disclosed is a DNA assembly mix, comprising a polymerase and ligase free composition comprising a 3'-5' exonuclease enzyme; and a buffer. Also disclosed is a method of assembling a plurality of DNA fragments comprising: (a) mixing the plurality of DNA fragments with the DNA assembly mix as disclosed herein; and (b) incubating the mixture from step (a) at a temperature for a period of time suitable for assembling the plurality of DNA fragments. Further disclosed is use of the DNA assembly mix as disclosed herein in high-throughput DNA assembly, wherein the DNA assembly mix is used in a microfluidic platform to assemble DNA.

Fig. 5