Ardent BioMed NGS DNA Library PrepSet

Product Description

The product amplifies multiple nucleic acid sequences at the same time through multiple PCR amplification technology, which could achieve high-fidelity PCR amplification of 100,000 to 10,000 pounds. The logarithm of self-customized Panel primers can be between ten and ten thousand pairs. The sequence junction is connected to the amplified target nucleic acid by ligase. The libraries prepared can be used on Ion Torrent or Illumina sequencing platforms.

NGS DNA
LIBRARY PREP SET
测序通用文库制备试剂盒

Product Features

High data uniformity
Uniformity＞95%

End primer digestion
Primer digestion reduces waste of known sequences

High library quality in complex areas
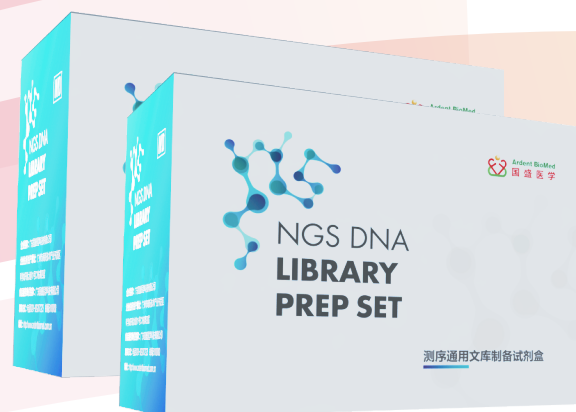High GC, high mutation, high repetition and other complex areas are of good quality

Low template start amount
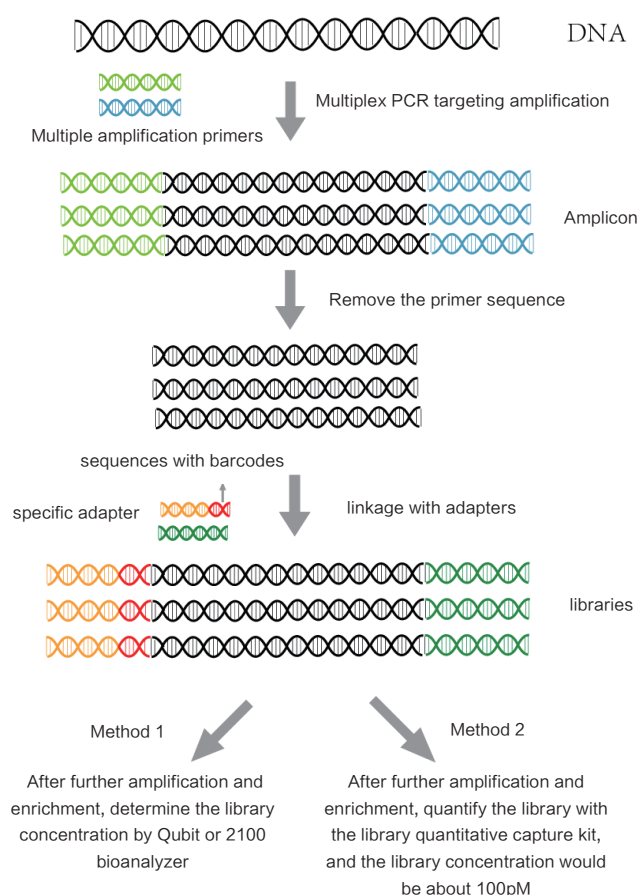The starting template can be as low as 1ng

Wide range of amplifying enrichment enzyme
The primer pairs from 10 to 10,000 pairs can be effectively amplified to build the library

experiment process

DNA

Multiple amplification primers

Multiplex PCR targeting amplification

Amplicon

Remove the primer sequence

sequences with barcodes

specific adapter

linkage with adapters

libraries

Method 1
After further amplification and enrichment, determine the library concentration by Qubit or 2100 bioanalyzer

Method 2
After further amplification and enrichment, quantify the library with the library quantitative capture kit, and the library concentration would be about 100pM
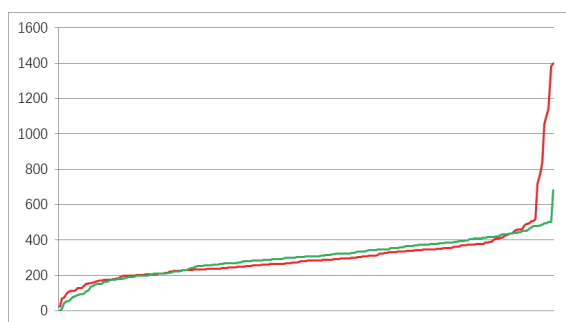
Use Company T and Ardent BioMed NGS DNA Library PrepSet to build up the library of Ardent BioMed TargetDrugs Panel (138) and Epilepsy Panel (9937) respectively, and use Ion Personal Genome Machine (PGM) System for sequencing.

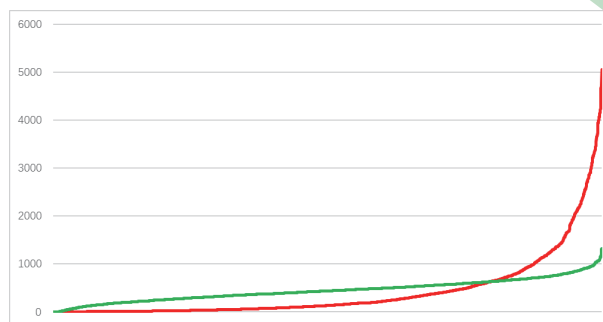The sequencing results are shown in the table below

Samples	Sample 1		Sample 2	
Primer Pairs	9937		138	
Reagents	Company T	Ardent BioMed	Company T	Ardent BioMed
Reads	1192646	1195715	71254	71314
Mappping Rate(%)	99.20	99.80	98.40	99.90
Mean Depth	390.28	396.17	295.56	298.58
On Target rate(%)	97.10	99.30	99.40	99.20
Uniformity(%)	58.50	94.70	98.80	99.40

Excellent Data Uniformity

Taking gDNA and FFPE as templates, use T Company and Ardent BioMed NGS DNA Library PrepSet respectively to construct the library of Ardent BioMed TargetDrugs Panel and Epilepsy Panel. The analysis results showes that: From 138 pairs of small Panel to 9937 pairs of large Panel, sequencing depth of more than 97% of Amplicon has exceeded 20% of average sequencing depth. **Data uniformity of library preparation kit of Ardent BioMed in small Panel is consistent with that of T Company, and data uniformity of large Panel is better than that of T Company.**
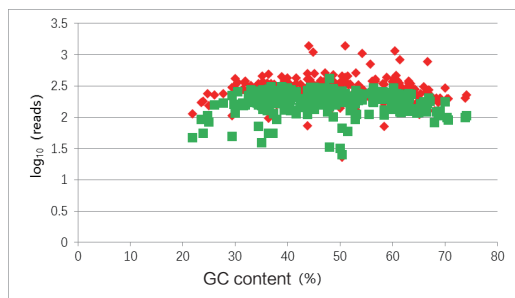

Data Uniformity Comparison Graph (Small Panel)
The solid green line repesents Guosheng Medical, and **the solid red line** represents Company T
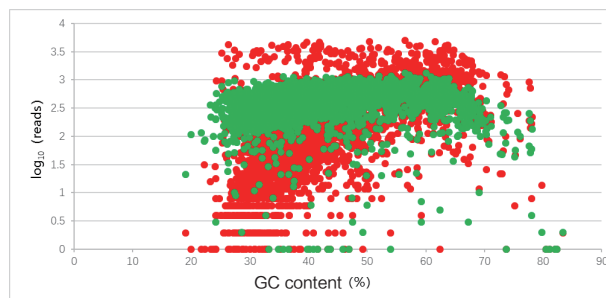

Data Uniformity Comparison Graph (Large Panel)
The solid green line repesents Guosheng Medical, and **the solid red line** represents Company T

Good GC Compatibility

Amplitudes with different GC content are prone to be preferentially expressed in PCR reaction. The amplified enrichment enzyme specially developed by Ardent BioMed can greatly reduce the preference of complex GC. The analysis results showed that: from 138 pairs of small Panel to 9937 pairs of large Panel, the sequencing depth of Amplicon with GC content of 20−80% exceeded the average sequencing depth of 20%. **The amplification consistency of library preparation kit of Ardent BioMed in small Panel was consistent with that of T Company, and the amplification consistency in large Panel was better than that of T Company.**

GC Compatibility Comparison Graph (Small Panel)
The green scatter repesents Guosheng Medical, and **the red scatter** represents Company T

GC Compatibility Comparison Graph (Large Panel)
The green scatter repesents Guosheng Medical, and **the red scatter** represents Company T

Welcome to inquire for trial!