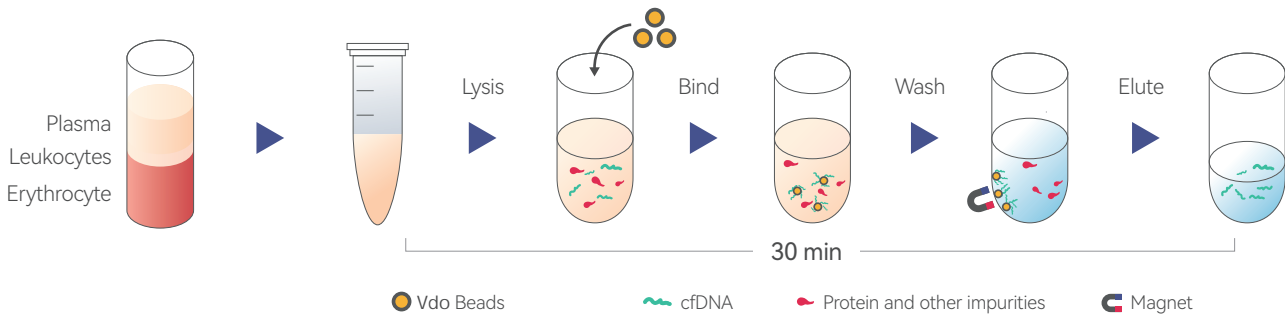


Vdo Cell-free DNA Isolation Kit

Cell-free DNA (cfDNA) is a fragment of cfDNA released from cells into the bloodstream that can carry biological information from tumors, pathogens and fetuses. The analysis of cfDNA provides key markers for diagnosis, detection and monitoring of disease progression. Currently, this technology has been widely used in the fields of tumor mutation detection, targeted drug guidance and prognosis, pathogen detection and non-invasive prenatal screening.

High quality nucleic acid is the guarantee for genomics research. Vdo uses superparamagnetic bead purification technology to provide users with a highly sensitive nucleic acid extraction solution that easily achieves trace nucleic acid extraction for low concentration. As verified by thousands of clinical samples, this product can extract high quality cfDNA from cell-free body fluids such as fresh or frozen plasma, serum, pleural fluid, ascites and cerebrospinal fluid for scientific research and clinical in-vitro diagnostic use.



Efficient Extraction

High DNA extraction yield, good purity, effective removal of impurities and downstream PCR inhibitors

Diverse Applications

Validated by clinical samples, designed for tumor, infection and prenatal diagnosis with liquid biopsy

Flexible Sample Incorporation

Easy extraction of cfDNA from 0.5mL to 4mL samples with elution volumes as low as 20µL

Wide Support of Automated Platform

Compatible with manual and automated extraction procedures, support Tecan, Hamilton, PE and other nucleic acid extraction workstations.

High quality, undifferentiated, scalable extraction process

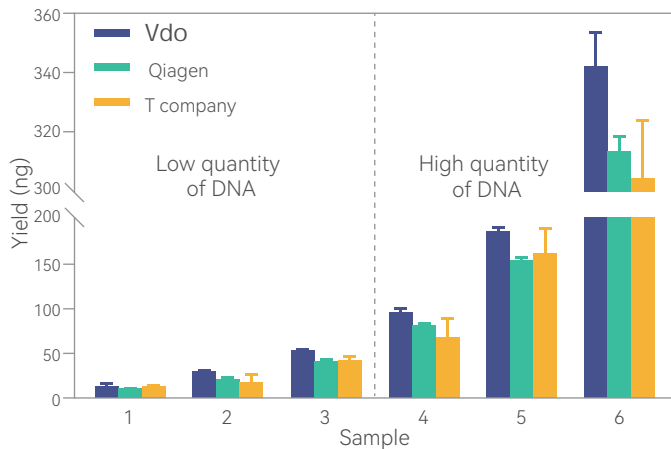


Figure 1. Efficient recovery of plasma cfDNA with different nucleic acid quantity.

Addition of a known amount of exogenous DNA fragment to plasma, simulating 3 gradients of high and low nucleic acid content samples, and using 3 kits for simultaneous nucleic acid extraction. Vdo cfDNA isolation kit can recover cfDNA fragments from samples with different nucleic acid quantity efficiently, and the nucleic acid yield and reproducibility are better than similar products from competing companies.

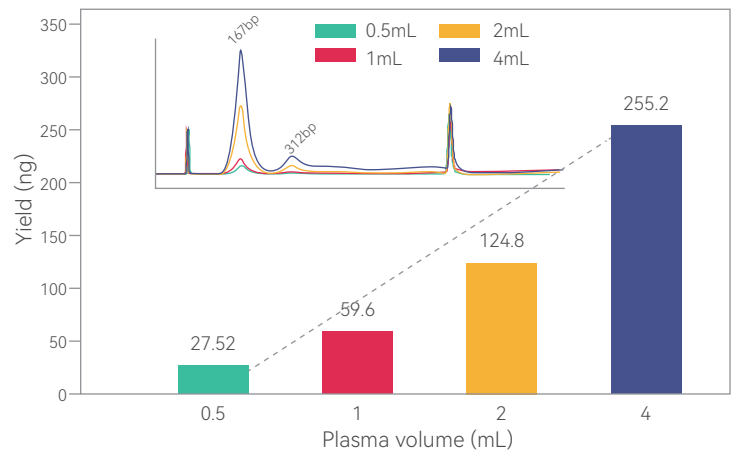


Figure 2. Good linearity of cfDNA recovery efficiency in different volumes of plasma samples.

The cfDNA yields showed good linearity with the plasma sample volume, using Vdo cfDNA isolation kit for 0.5, 1, 2, and 4 mL plasma samples, respectively, and the peak patterns of the different volumes of extracted cfDNA were identical by Agilent 2100 DNA assay kit.

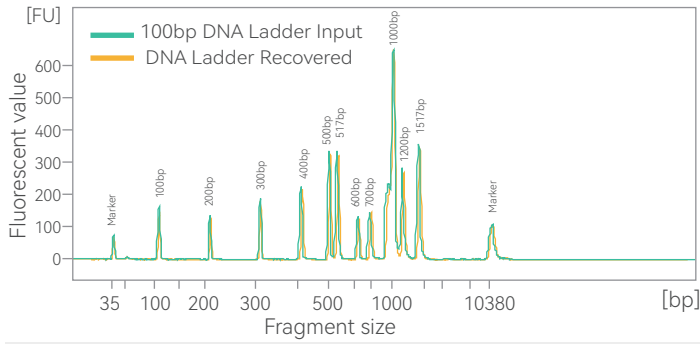


Figure 3. High recovery efficiency of DNA fragments. The DNA Ladder was extracted using Vdo cfDNA extraction kit, and the distribution of DNA Ladder fragments was detected by Agilent 2100. It was found that the fragment sizes and peak shape were basically the same before and after extraction, which proved the superior DNA recovery efficiency of this kit.

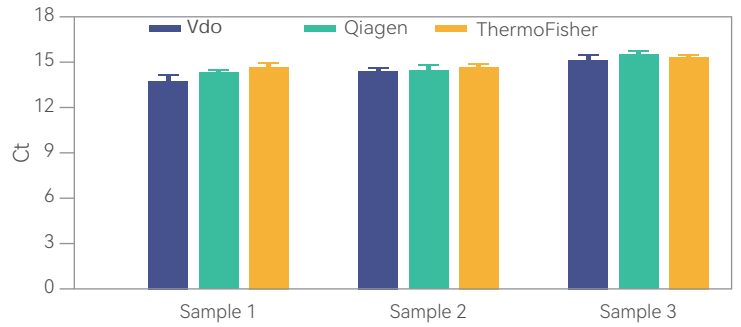
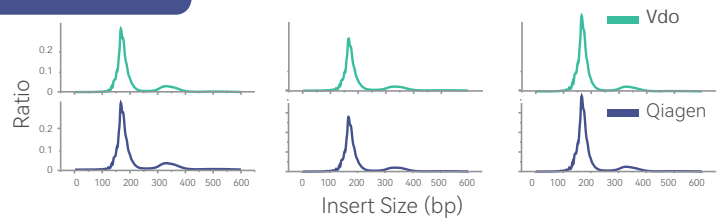
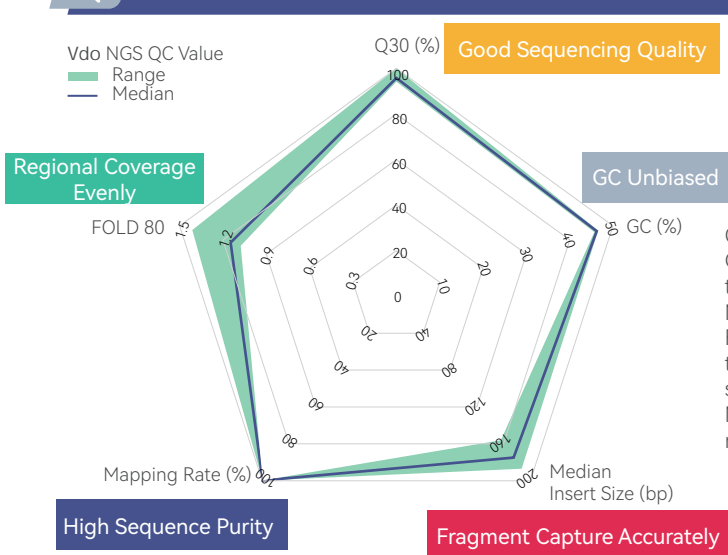


Figure 4. cfDNA fluorescence quantitative PCR Ct values are the same as those of high-quality competing kits. Fluorescence quantification of 2 mL plasma samples after cfDNA extraction using different brands of cfDNA extraction kits, Vdo cfDNA isolation kit's performance is the same as top-class companies' products.

Stable, balanced and accurate sequence information



Q30 (%): Proportion of bases with 99.9% correct sequencing to total bases
 GC (%): The proportion of G and C bases in each sample; the GC proportion in the human genome is around 42%
 Median Insert Size (bp): Median of actual size of sequenced fragments (inserts)
 Fold 80: Fold of additional sequencing required to meet 80% of the target bases to reach the average depth of coverage, characterizing the uniformity of sequencing coverage of the fragment capture region
 Mapping Rate (%): Proportion of sequenced fragments localized to the reference genome by sequence mapping

Figure 5. Excellent quality control data for NGS. The extracted cfDNA using the Vdo cfDNA isolation kit into the NGS process performed excellently and showed high consistency with similar products from competing companies.

Accurate and stable mutation detection capability

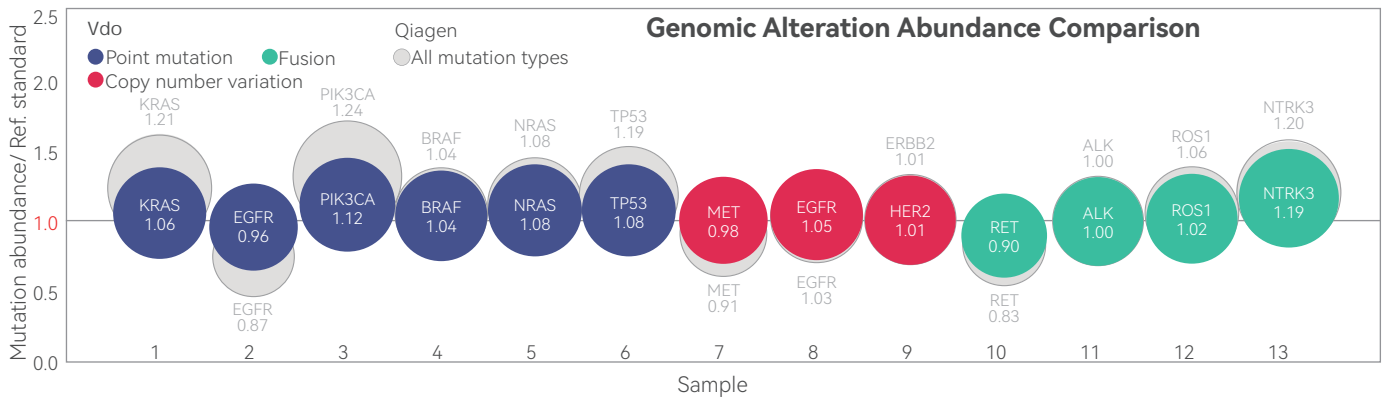


Figure 6. Detected mutation abundance is in consistent with the theoretical abundance of the reference standard with a ratio of 1.. After using Vdo cfDNA extraction kit to extract standard cfDNA into NGS process, the detected mutation abundance is highly consistent with the theoretical mutation abundance of ref. standard, and the similarity of mutation abundance detection with similar products of competing companies is high.