

# Cell-Free DNA Controls

## Authentic, Patient-Like, in Human Plasma

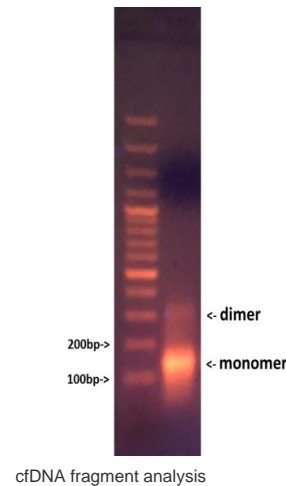
True human plasma-based cell-free DNA controls for validating ctDNA detection workflows. Manufactured with 32 cell-derived variants and fusions at clinically relevant allele frequencies, these controls behave like real patient samples — same extraction efficiency, same fragmentation patterns, same matrix effects.

### Key Features:

32 cell-derived ctDNA variants and fusions | Wildtype Male or Female controls available  
Available in TE buffer or human plasma matrix | DNA-Depleted Plasma available separately

## Included Variants

APC Q1429*	KIT D816V
APC R1450*	KRAS G12C
BRAF V600E	KRAS G12D
CTNNB1 T41A	KRAS G12V
EGFR C797S	NRAS Q61R
EGFR E746-A750del	PIK3CA E545K
EGFR L858R	PIK3CA H1047R
EGFR D770_N771insG	PTEN R130G
EGFR T790M	TP53 R175H
FGFR3 S249C	TP53 R248Q
IDH1 R132H	



## Product Catalog

Product Name	Source of gDNA	Cat. No. (TE)	Cat. No. (Plasma)	Size per Vial
Multiplexed ctDNA	Mutated PAM3005 cells 23+ variants, 3% AF each	60100101	60100102	1µg / 125ng/5mL
cfDNA Fusions	Mutated PAM3005 cells 7 fusions: ALK, RET, BRAF, ROS1, NTRK1, FGFR1, FGFR3	60133001 or 60133002	60133501 or 60133502	1µg / 125ng/5mL
Normal Cell Line cfDNA	Normal male or female cell lines	60133001 or 60133002	60133501 or 60133502	1µg / 125ng/5mL
Normal Patient cfDNA	Pooled patient PBMC	60133003	60133503	1µg / 125ng/5mL

Note: DNA-Depleted Plasma can be ordered separately (Cat. No. 60601001).

### Why True Human Plasma Controls?

Unlike synthetic spike-in controls, these cfDNA standards are manufactured from real human cell lines in DNA-depleted plasma. This ensures patient-like extraction efficiency, fragmentation patterns, and matrix effects — giving you more clinically relevant QC data for your ctDNA detection workflows.



## NIPT Trisomy 13, 18, 21, SCA Controls

cfDNA contains Trisomy 13, 18, 21, and Sex Chromosome Aneuploidy positive gDNA mixed with female gDNA at 5% or customized fetal fraction, spiked in DNA-depleted human plasma. Designed for counting-based aneuploidy detection assays.

Product Description	Cat. No.	Base Matrix (vol)	Fetal Fraction	gDNA Content (ng)
Trisomy 13	60100513	EDTA Plasma (3 mL)	5%	60
Trisomy 18	60100518	EDTA Plasma (3 mL)	5%	60
Trisomy 21	60100521	EDTA Plasma (3 mL)	5%	60
45, X	60100524	EDTA Plasma (3 mL)	5%	60
47, XYY	60100525	EDTA Plasma (3 mL)	5%	60
47, XXY	60100526	EDTA Plasma (3 mL)	5%	60
47, XXX	60100527	EDTA Plasma (3 mL)	5%	60
Wildtype Female	60133502	EDTA Plasma (3 mL)	0%	60

### Applications

- Validation of NIPT assays for Trisomy 13, 18, and 21 detection
- Sex chromosome aneuploidy (SCA) screening assay development
- Lot-to-lot QC and inter-laboratory proficiency testing
- Method comparison studies for counting-based cfDNA platforms
- Compatible with Revvity Vanadis, Illumina, and similar NIPT systems

## Authentic Validation Needs Patient-like cfDNA in Human Plasma

