

Medaysis
Enable Innovation

Ultra-Sensitive cfDNA Mutation Detection Kits



Novel and Proprietary Mutation Enrichment Technology

Medaysis' Ultra-Sensitive cfDNA Mutation Detection Kits provide Clonal Differential Amplifier (CloDiA™) PCR using novel and proprietary primers to amplify somatic Mutations and suppress or block the amplification of wild type gene in human genomic DNA.

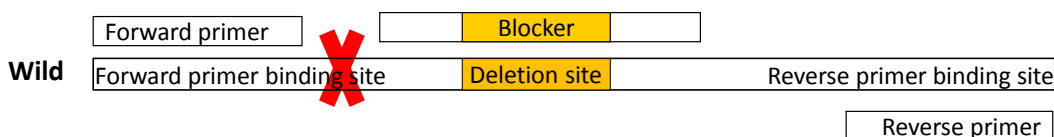
CloDiA™ PCR includes two types of technique - Unindel™ PCR and Stuntmer™ PCR. Unindel™ PCR is designed to detect a broad range of insertions/deletions (universal insertions/deletions) in the target region. The three-primer set comprising forward primer, reverse primer and blocker inhibits amplification of wild type gene but enables amplification of exonic insertions/ deletions.

Stuntmer™ PCR is designed to detect a broad range of point Mutations in the target region. Dual port primer of R Port and E Port is designed for self-competition to preferably amplify mutated gene but suppress wild type gene amplification.

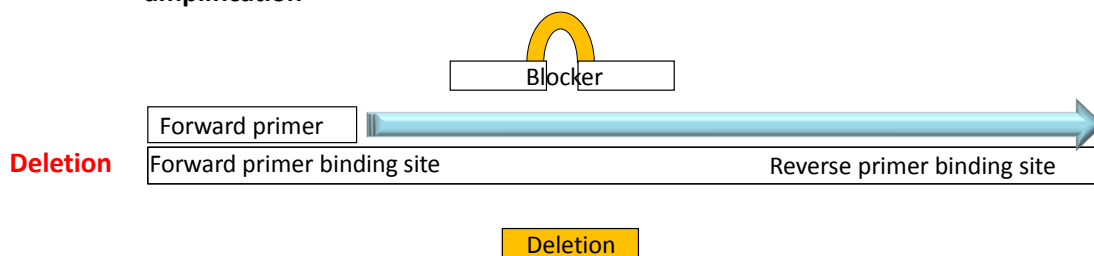
This sensitive and specific method enables the detection of less than 1% (as little as 20 ng to 100 ng) of mutant genes mixed with the wild type. Besides known Mutations, this method can detect unknown Mutations in the target region.

Unindel PCR: Detects a Broad Range of Insertions/Deletions

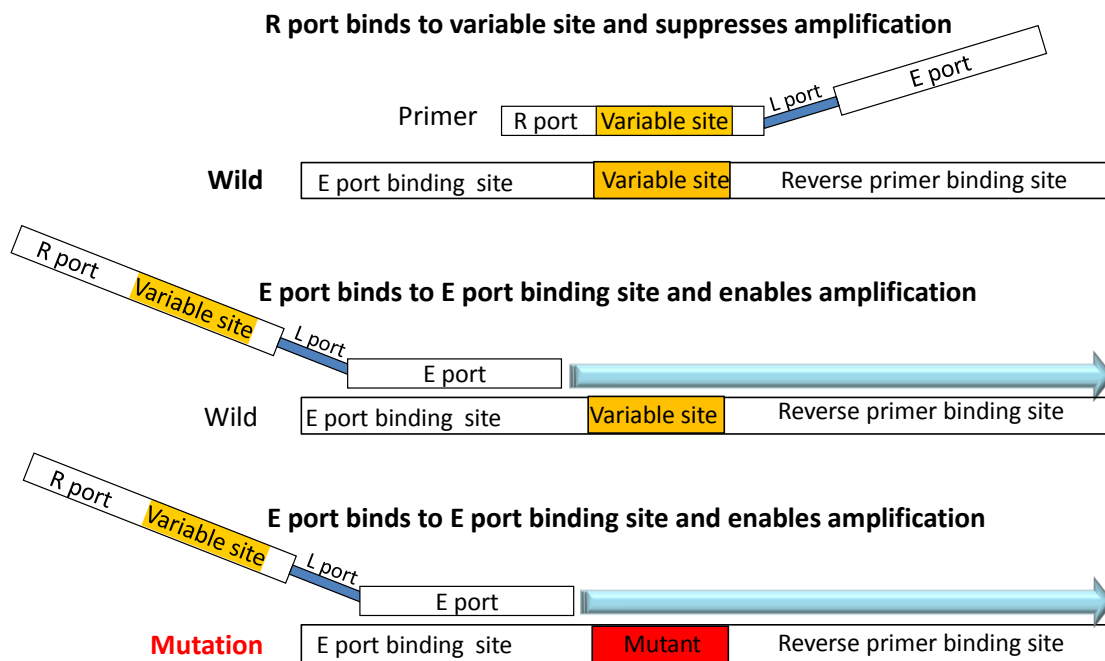
Blocker binds to deletion site and inhibits amplification



Blocker unbinds from the site and Forward primer binds to the site to enable amplification



Stuntmer PCR: Detects a Broad Range of Point Mutations



Features and Benefits

Minimal Sample

Small amount of DNA required (20 to 100 ng)

Compatible Samples

Blood/Plasma cfDNA; FFPE/Fine needle biopsies; Pleural effusion specimens/Cell blocks, Cytology samples

Broad range of Mutations

Known and unknown mutation in target exons

Ultrasensitive

Detect 0.1-1% mutant genes

Highly Specific

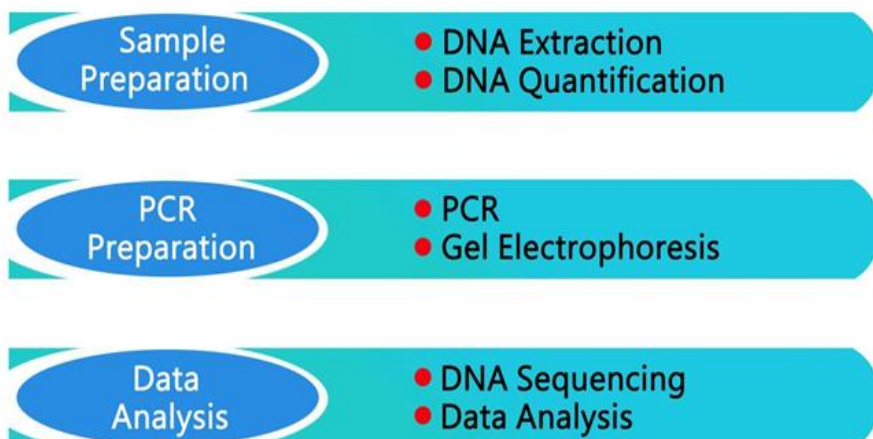
No risk of mispriming; reagents do not encode for the Mutation of interest

Open System

Compatible with various PCR instruments

No Micro dissection Required

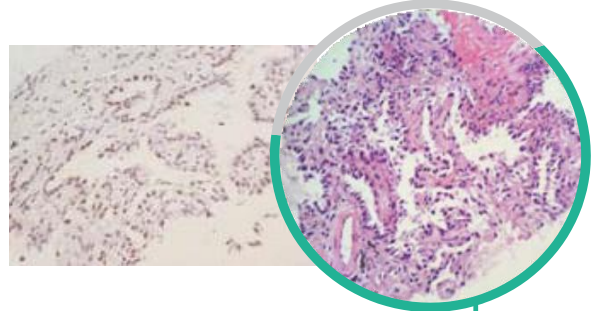
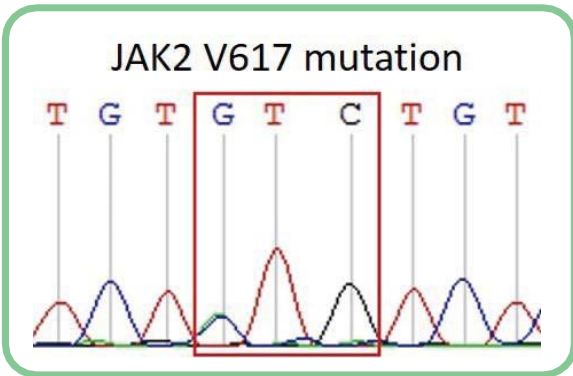
Mutation Detection Kit Workflow



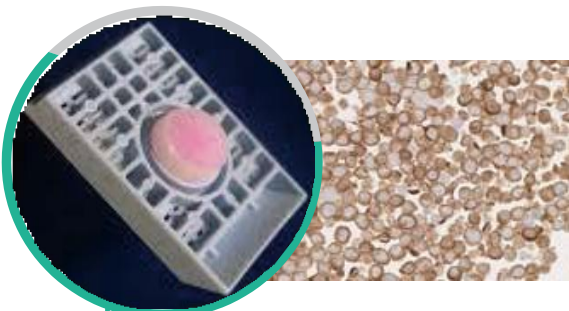
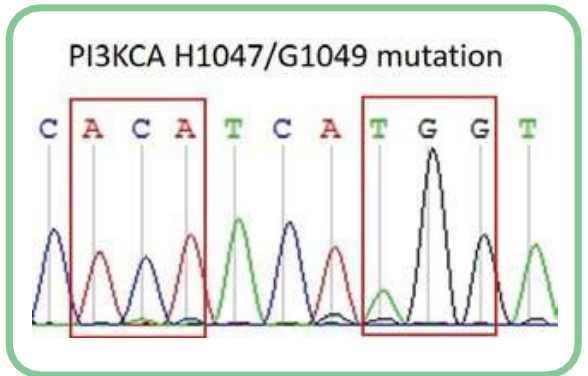
Total solution



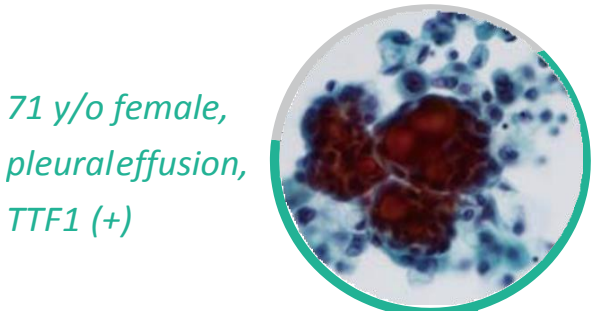
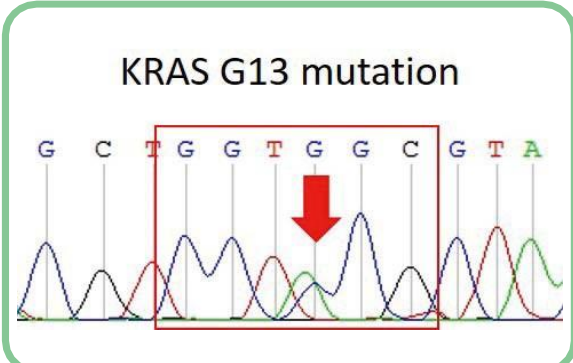
Blood / Plasma cfDNA



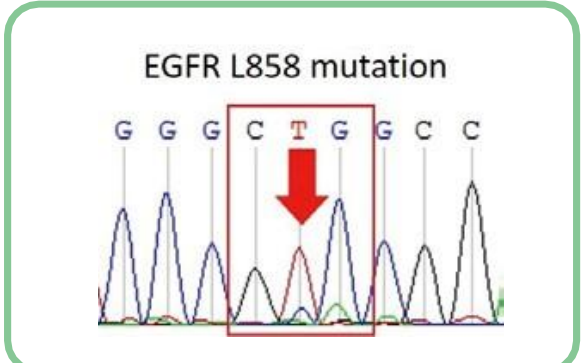
FFPE / Fine needle biopsy



Pleural effusion / Cell block



Cytology sample



Featured Product: Ultra-Sensitive cfDNA EGFR Mutation Detection Kit_exon18/19/20/21

Cat No	Description	Tests
EGFR0002-20	Ultra-Sensitive cfDNA EGFR Mutation Detection Kit_exon18/19/20/21	20
EGFR0002-50	Ultra-Sensitive cfDNA EGFR Mutation Detection Kit_exon18/19/20/21	50

Kit components

No.	Cat. No.	Name of Components	Volume (µl)	
			EGFR0002-20	EGFR0002-50
1	EGFR0021	EGFR Exon 18 PCR primer mix	100	250
2	EGFR0022	EGFR Exon 19 PCR primer mix	100	250
3	EGFR0023	EGFR Exon 20 PCR primer mix	100	250
4	EGFR0024	EGFR Exon 21 PCR primer mix	100	250
5	EGFR0025	EGFR Exon 20 T790 PCR primer mix	100	250
6	EGFR0041	EGFR Exon 18 sequencing primer	10	25
7	EGFR0042	EGFR Exon19 sequencing primer	10	25
8	EGFR0043	EGFR Exon 20 sequencing primer	10	25
9	EGFR0044	EGFR Exon 21 sequencing primer	10	25
10	EGFR0045	EGFR Exon 20 T790 sequencing	10	25
11	SQC0021	DNA Quality Control Primer Mix	100	250
12	OTH0001	2x PCR Master Mix	1400	3500
13**	EGFR0061	Exon 19 Wild-type Control	20	50
14**	EGFR0062	EGFR Exon 20 plasmid wild type	20	50
15**	EGFR0063	EGFR Exon 21 plasmid wild type	20	50
16**	EGFR0064	EGFR Exon 19 plasmid deletion	20	50
17	OTH0002	Nuclease-Free Water	1000	2500
18	OTH0003	Cell-Free DNA BCT®	20	50

* Each component contains enough material to test 20 or 50 DNA samples

** Plasmid controls contain high copy number of control templates. Please perform carefully to avoid cross contamination.

Medaysis' cfDNA Mutation Detection Kits Portfolio (research use only)

Product	Cat. No.	Tests	Hot spot(A.A.)	Range(A.A)
ABL	ABL0002-20/50	20/50	M244	237~275 aa
			Q252/Y253/E255	184~260 aa
			T315	308~361 aa
			M351	310~359 aa
AKT	AKT0002-20/50	20/50	E17	8~33 aa
ASXL1	ASXL10002-20/50	20/50	G646	635~657 aa
BRAF	BRAF0002-20/50	20/50	V600	591~620 aa
DNMT3A	DNMT3A0002-20/50	20/50	R882	873~904 aa
EGFR	EGFR0002-20/50	20/50	G719	688~728 aa
			Exon 19 del	739~760 aa
			S768	761~823 aa
			L858/L861	850~875 aa
			T790	782~823 aa
FLT3	FLT30002-20/50	20/50	D835	807~844 aa
HRAS	HRAS0002-20/50	20/50	G12/G13	6~37 aa
			Q59/Q61	53~97 aa
			K117	112~150 aa
			A146	127~150 aa
JAK2	KIT0002-20/50	20/50	V617	608~621 aa
KIT	JAK20002-20/50	20/50	V560	551~591 aa
			L576	549~584 aa
			K642	635~663 aa
KRAS	KRAS0002-20/50	20/50	G12/G13	3~23 aa
			Q59/Q61	53~96 aa
			K117	107~150 aa
			A146	107~150 aa
NRAS	NRAS0002-20/50	20/50	G12/G13	6~37 aa
			Q59/Q61	52~97 aa
			K117	108~150 aa
			A146	123~150 aa
PI3KCA	PI3KCA0002-20/50	20/50	E542/E545/Q546	536~554 aa
			H1047/G1049	1039~1069 aa
TET2	TET20002-0020	20/50	R550	544~619 aa
TP53	TP530002-0020	20/50	R273	266~306 aa