

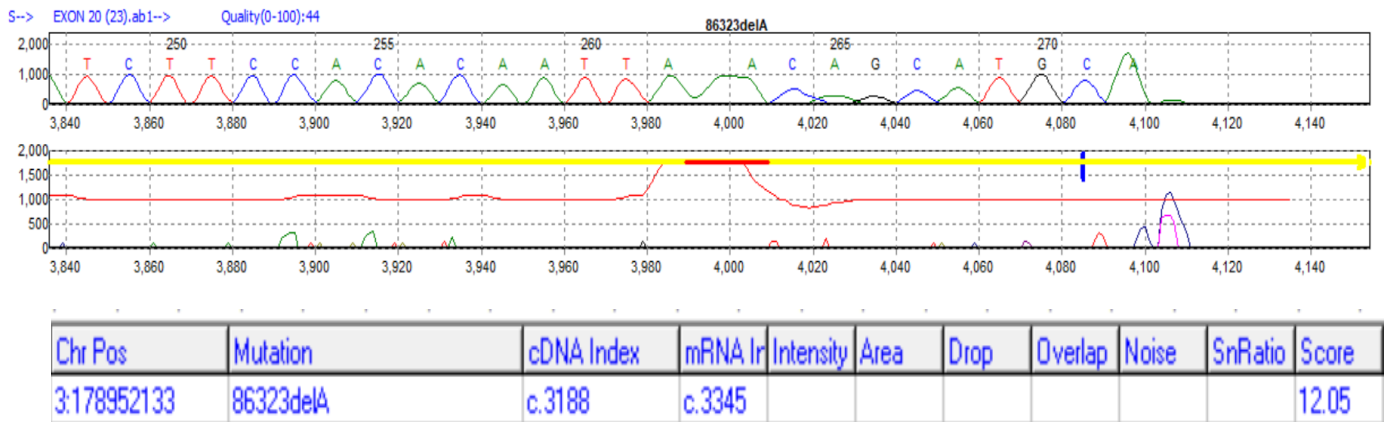
**Table S1. Mutation report of PI3KCA (Exon 9&20), BRAF (Exon 15) and KRAS (Exon 2) in biopsies of CRC patients in Erbil- Iraqi Kurdistan region.** A mutation surveyor was applied for mutation detection analysis.

Gene	Exon	No. Mutations	Mutations			
PIK3CA	9	0				
PIK3CA	9	0				
PIK3CA	9	0				
PIK3CA	9	1	70417T>TA\$16			
PIK3CA	9	0				
PIK3CA	9	0				
PIK3CA	9	3	70422C>CA\$31	70423A>AG\$56	70424G>GA\$24	
PIK3CA	9	1	70162A>AT\$5			
PIK3CA	9	0				
PIK3CA	9	2	70269T>TC,541S>S/ P\$10	70271het_dupT\$19		
PIK3CA	9	2	70162A>AT\$26	70272G>GA,542E>E /K\$64		
PIK3CA	9	0				
PIK3CA	9	0				
PIK3CA	9	0				
PIK3CA	9	0				
PIK3CA	20	0				
PIK3CA	20	0				
PIK3CA	20	1	86324A>C,1063K>N \$22			
PIK3CA	20	1	86324A>AC,1063K> K/N\$19			
PIK3CA	20	0				
PIK3CA	20	1	86324A>C,1063K>N \$22			
PIK3CA	20	1	86324A>C,1063K>N \$60			
PIK3CA	20	1	86324A>C,1063K>N \$49			
PIK3CA	20	2	86099T>TC,988Y>Y /Y\$8	86323delA\$12		
PIK3CA	20	1	86324A>C,1063K>N \$56			
PIK3CA	20	0				
PIK3CA	20	0				
PIK3CA	20	16	86102A>AT,989L>L /L\$5	86217T>TC,1028L> L/L\$16	86237G>GA,1034E >E/R\$52	86246G>GA,1037 E>I\$29
			86219A>AG,1028L> L/L\$34	86220G>GA,1029D> D/I\$44	86239C>CG,1035A >A/G\$58	86245_86246insW \$11
			86221A>AT,1029D> D/I\$34	86226A>AC,1031T> T/P\$10	86240T>TC,1035A >A/G\$17	86248A>AT,1038 Y>V\$11
			86235G>GA,1034E> E/R\$40	86236A>AG,1034E> E/R\$19	86243G>GT,1036L >L/F\$15	86314A>AC,1060 H>P\$6

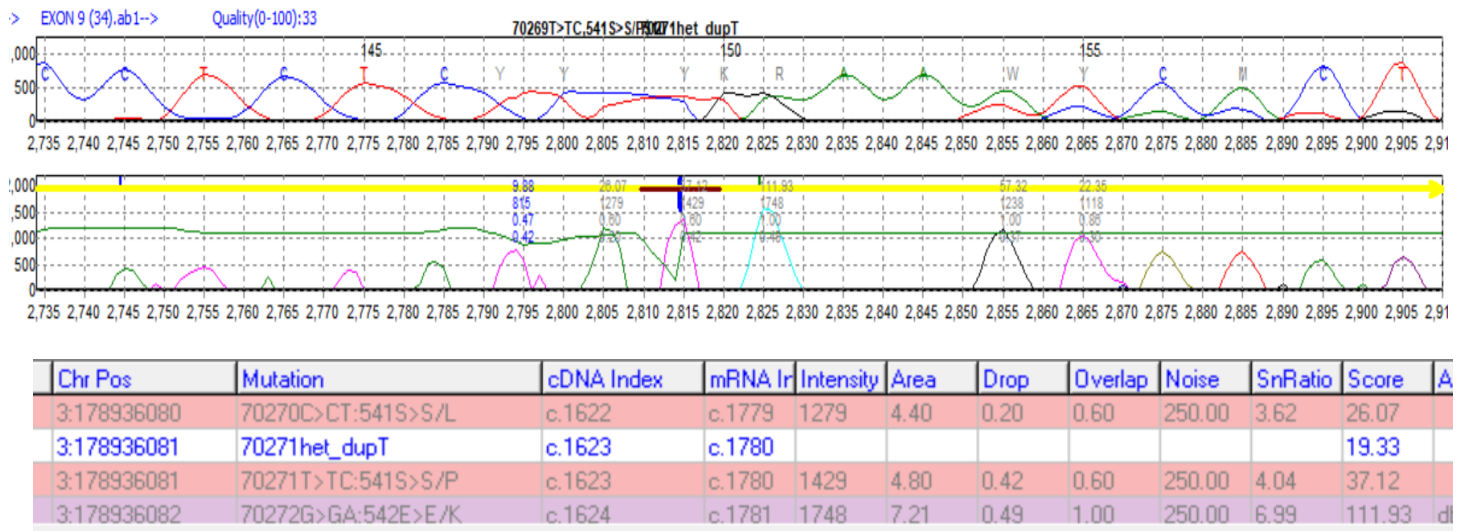
PIK3CA	20	1	86099T>TC,988Y>Y /Y\$9			
BRAF	15	0				
BRAF	15	0				
BRAF	15	0				
BRAF	15	0				
BRAF	15	0				
BRAF	15	0				
BRAF	15	0				
BRAF	15	0				
BRAF	15	0				
BRAF	15	0				
BRAF	15	0				
BRAF	15	0				
BRAF	15	0				
BRAF	15	0				
BRAF	15	0				
BRAF	15	1	171943A>AT,605S> S/C\$7			
BRAF	15	0				
BRAF	15	0				
BRAF	15	0				
BRAF	15	0				
BRAF	15	0				
BRAF	15	0				
KRAS	2	0				
KRAS	2	0				
KRAS	2	0				
KRAS	2	0				
KRAS	2	0				
KRAS	2	0				
KRAS	2	2	6087G>GC,12G>G/ A\$49	6144A>AT,31E>E/V \$16		
KRAS	2	0				
KRAS	2	0				
KRAS	2	2	6141A>AT,30D>D/ V\$6	6144A>AT,31E>E/V \$18		
KRAS	2	0				
KRAS	2	0				
KRAS	2	0				
KRAS	2	3	6141A>AT,30D>D/ V\$12	6144A>AT,31E>E/V \$83	6150A>AT,33D>D/ V\$6	
KRAS	2	5	6087G>GA,12G>G/ D\$41	6113A>AT,21I>I/L\$ 11	6128A>AT,26N>N/ Y\$5	
			6141A>AT,30D>D/ V\$5	6144A>AT,31E>E/V \$11		

KRAS	2	3	6141A>AT,30D>D/ V\$12	6144A>AT,31E>E/V \$23	6150A>AT,33D>D/ V\$9	
KRAS	2	0				
KRAS	2	0				
KRAS	2	0				
KRAS	2	4	6128A>AT,26N>N/ Y\$83	6141A>AT,30D>D/ V\$21	6144A>AT,31E>E/ V\$73	6150A>AT,33D> D/V\$14
KRAS	2	0				
KRAS	2	0				

(a)



(b)



**Figure S1.** The GAD Report of Mutation Surveyor for KRAS, PI3KCA and BRAF Mutations. (a). PI3KCA (Exon 20) (del.). (b). PI3KCA (Exon 9).