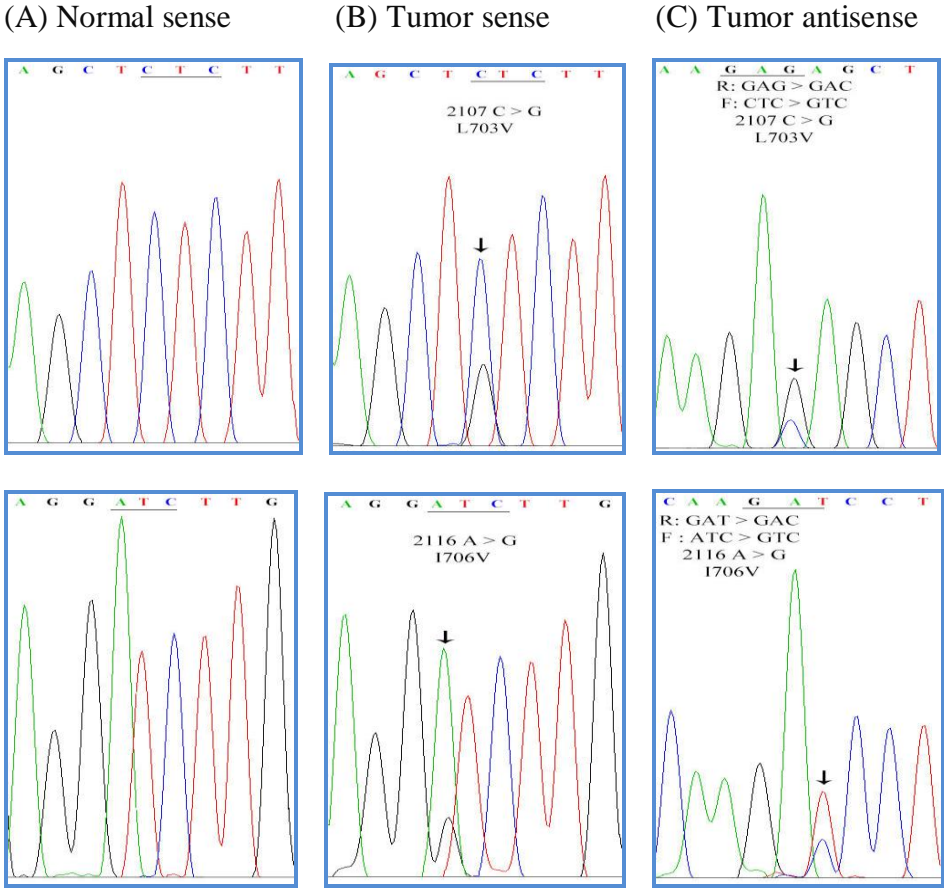


# Erlotinib is effective in pancreatic cancer with epidermal growth factor receptor mutations: a randomized, open-label, prospective trial

## Supplementary Material

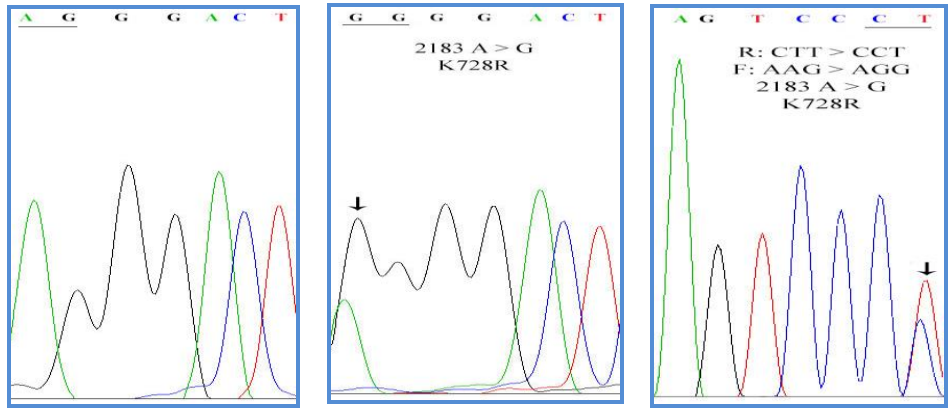
Supplementary Figure 1. DNA sequencing analysis of EGFR gene from exons 18 to 21.

Exon 18

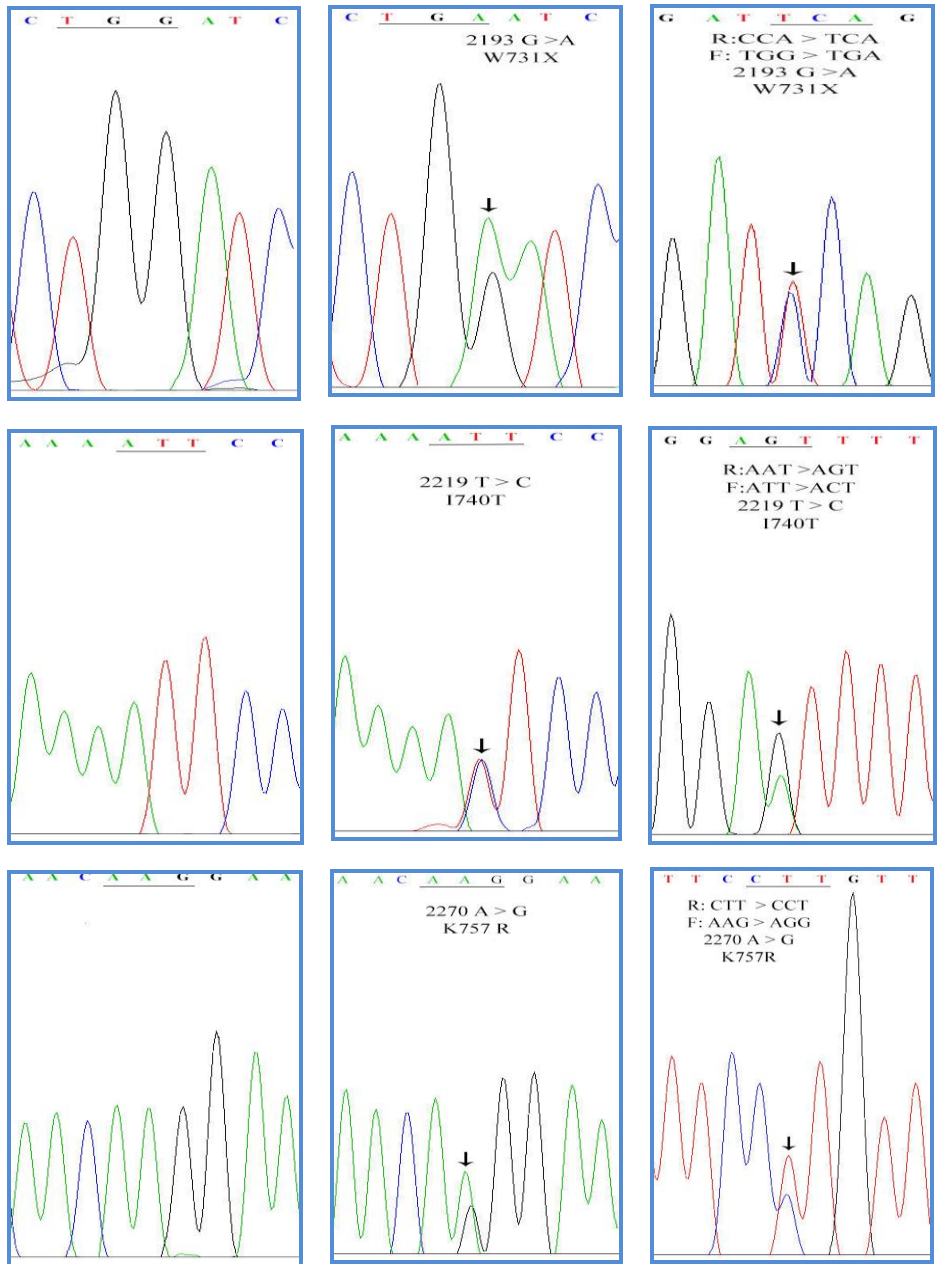


Exon 19

(A) Normal sense (B) Tumor sense (C) Tumor antisense



\*The peak of 2182A was not shown due to its position at exon 18.

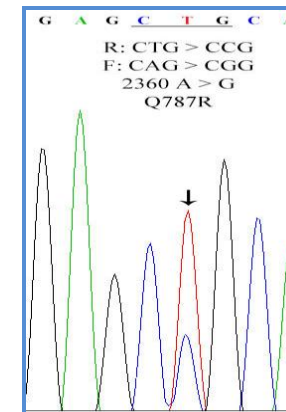
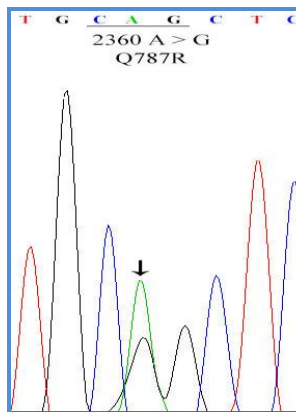
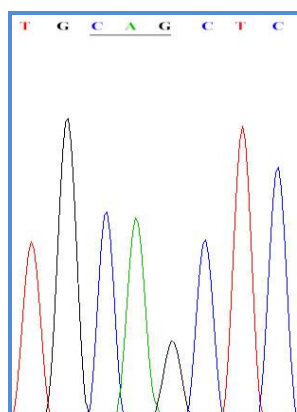
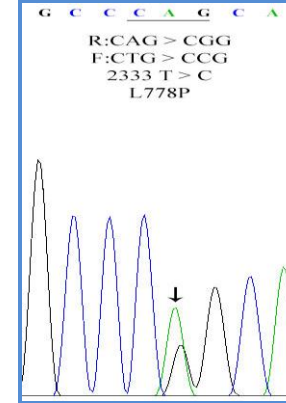
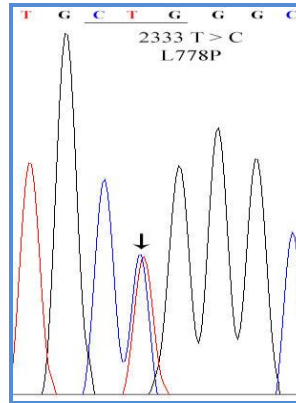
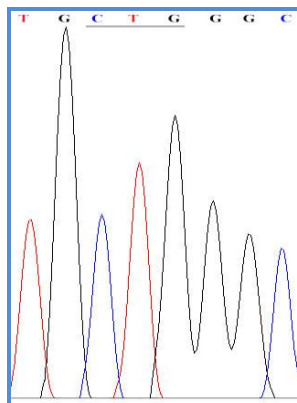
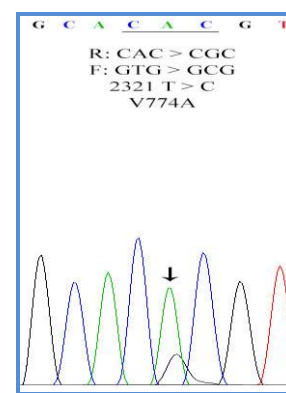
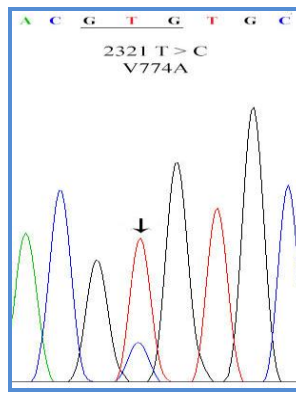
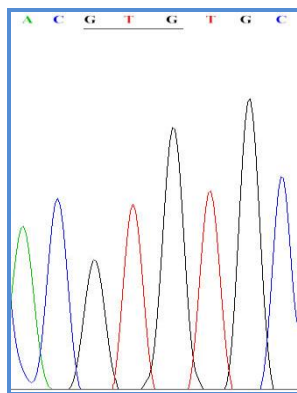
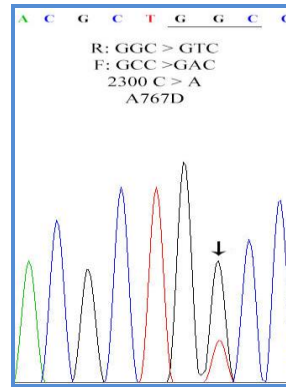
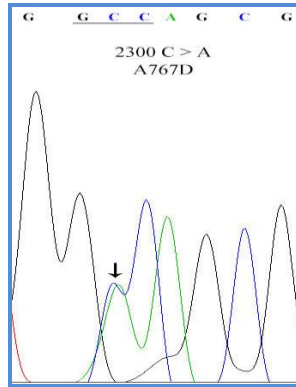
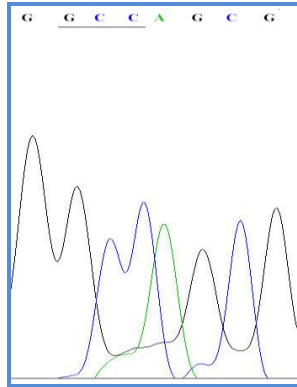


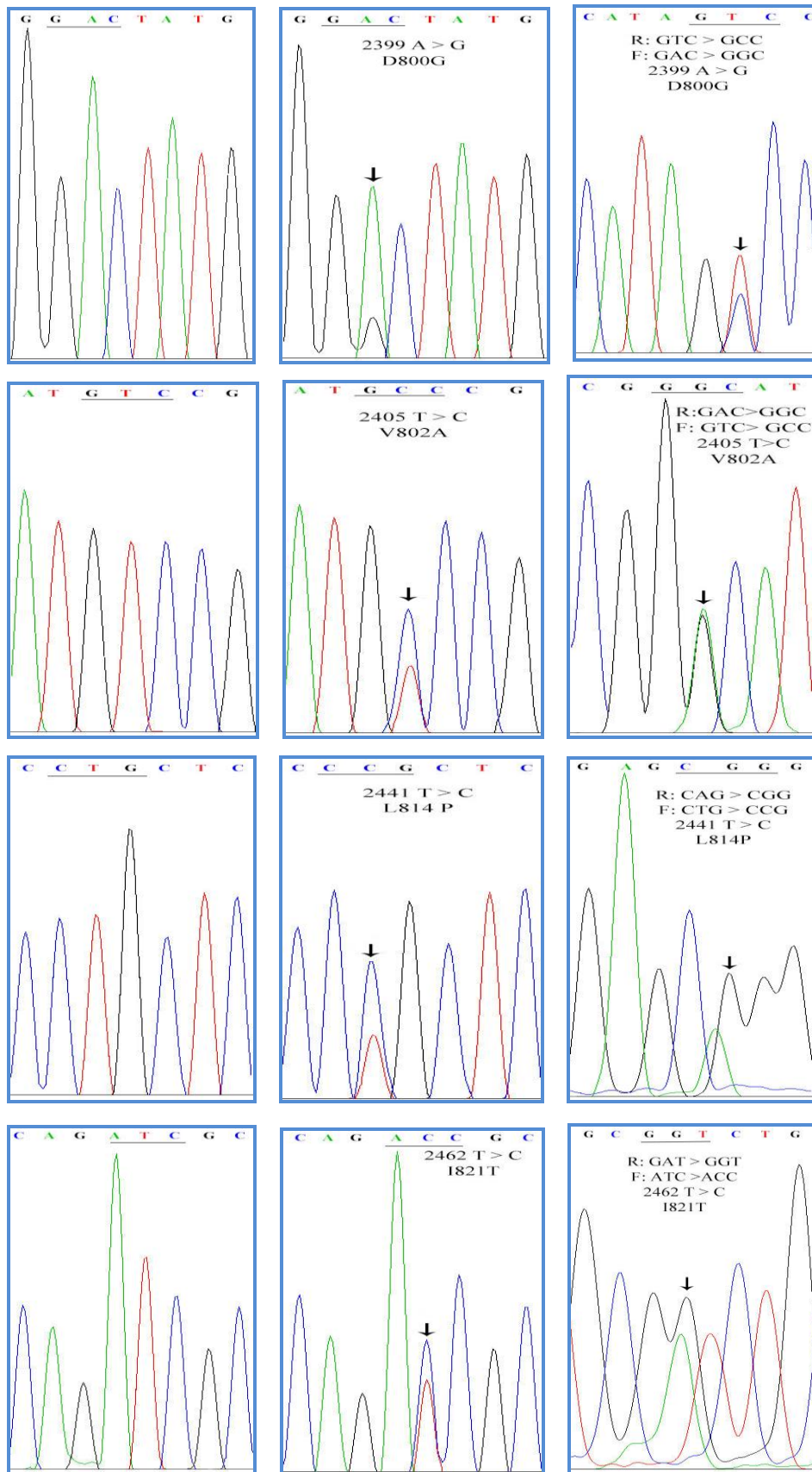
Exon 20

(A) Normal sense

(B) Tumor sense

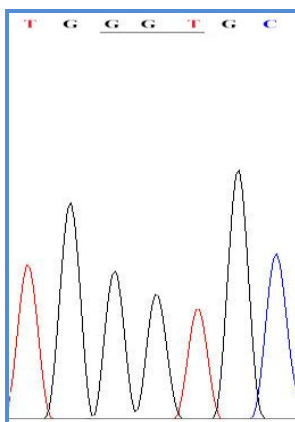
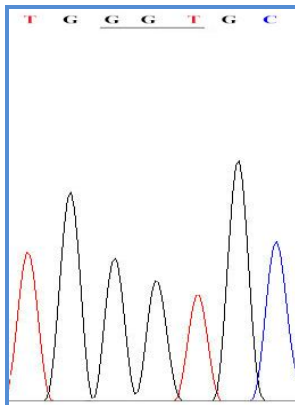
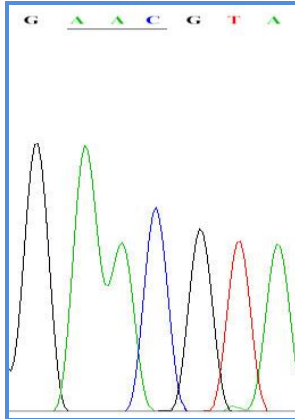
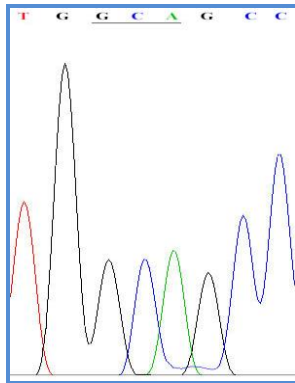
(C) Tumor antisense



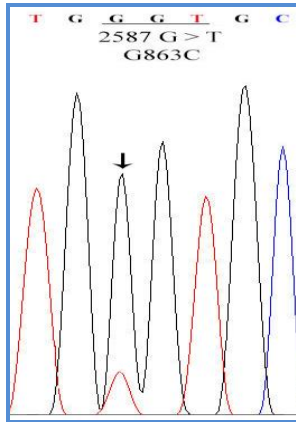
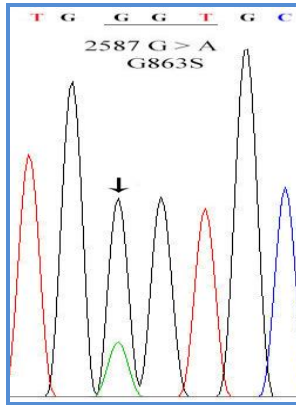
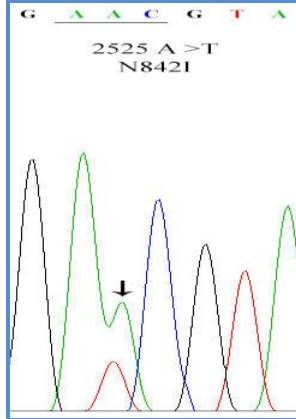
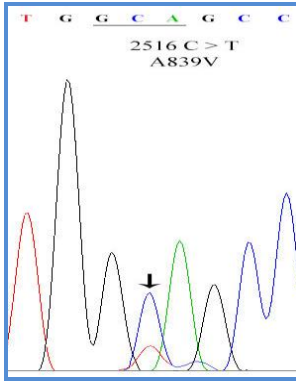


Exon 21

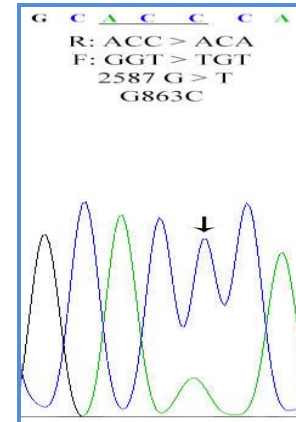
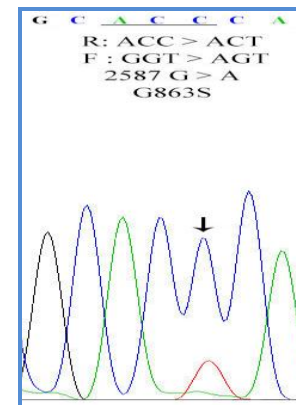
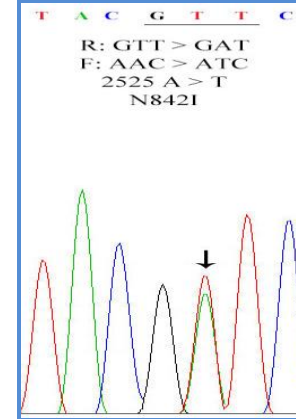
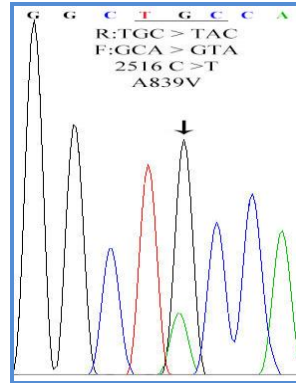
(A) Normal sense



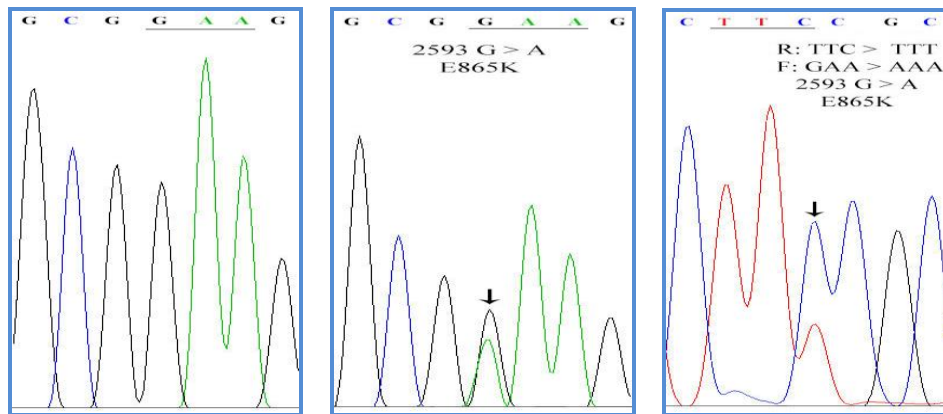
(B) Tumor sense



(C) Tumor antisense







Arrows indicate nucleotide changes. F: forward direction. R: reverse direction.

**Supplementary Table 1.** Sequences of the primers used for polymerase chain reaction

Gene	Forward primer sequence	Reverse primer sequence
<i>EGFR</i> exon 18	GGCTGAGGTGACCCTTGTC	CTGCGGCCAGCCCAGAG
<i>EGFR</i> exon 19	AGCATGTGGCACCATCTCAC	GAGAAAAGGTGGGCCTGAGG
<i>EGFR</i> exon 20	ATGCGAAGCCACACTGACGT	TGGTCCTTATCTCCCCTCC
<i>EGFR</i> exon 21	ATCTGTCCCTCACAGCAGG	TCAGGAAAATGCTGGCTGA

**Supplementary Table 2.** Mutation pattern and treatment response in 49 pancreatic cancer patients with mutated *EGFR* genes

Mutations		No. (%)	Response rate (%)			Disease control rate (%)		
Nucleotide	Amino acid		G n = 23	G+E n = 26	P	G n = 23	G+E n = 26	P
Exon 18		2 (3%)						
2107C>G	L703V	1 (2%)	0/1 (0%)	-		1/1 (100%)	-	
2116A>G	I706V	1 (2%)	0/1 (0%)	-		0/1 (0%)	-	
Exon 19		23 (37%)						
2183A>G	K728R	12 (19%)	0/4 (0%)	1/8 (13%)	1.000	1/4 (25%)	7/8 (88%)	0.067
2193G>A	W731X	8 (13%)	0/8 (0%)	1/1 (100%)	0.111	1/8 (13%)	1/1 (100%)	0.222
2219T>C	I740T	2 (3%)	-	1/2 (50%)		-	2/2 (100%)	
2270A>G	K757R	1 (2%)	0/1 (0%)	-		1/1 (100%)	-	
Exon 20		31 (50%)						
2300C>A	A767D	1 (2%)	0/1 (0%)	-		0/1 (0%)	-	
2321T>C	V774A	1 (2%)	0/1 (0%)	-		0/1 (0%)	-	-
2333T>C	L778P	15 (24%)	0/8 (0%)	1/7 (14%)	0.467	0/8 (0%)	5/7 (71%)	0.007
2360A>G	Q787R	2 (3%)	-	0/2 (0%)		-	2/2 (100%)	
2399A>G	D800G	1 (2%)	-	0/1 (0%)		-	1/1 (100%)	
2405T>C	V802A	1 (2%)	-	0/1 (0%)		-	1/1 (100%)	
2441T>C	L814P	1 (2%)	-	0/1 (0%)		-	1/1 (100%)	
2462T>C	I821T	9 (15%)	1/4 (25%)	3/5 (60%)	0.524	3/4 (75%)	4/5 (80%)	1.000
Exon 21		6 (10%)						
2516C>T	A839V	1 (2%)	-	1/1 (100%)		-	1/1 (100%)	
2524A>T	N842I	2 (3%)	0/1 (0%)	0/1 (0%)	1.000	0/1 (0%)	1/1 (100%)	1.000
2587G>A	G863S	1 (2%)	0/1 (0%)	-		0/1 (0%)	-	
2587G>T	G863C	1 (2%)	-	0/1 (0%)		-	1/1 (100%)	
2593G>A	E865K	1 (2%)	-	0/1 (0%)		-	1/1 (100%)	
Total		62 (100%)						

Abbreviations: G, gemcitabine alone; G+E, gemcitabine plus erlotinib; X, stop codon.