

Detecting *ALK* rearrangement by RT-PCR: A reliable approach compared to next generation sequencing in the NSCLC patients

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Supplementary Table1. Subtype of ALK tested by RT-PCR

Subtype of ALK		
EML4 exon13;ALK exon 20	EML4 exon15 del60;del71 ALK exon 20	EML4 exon17 del58;ins39 ALK exon 20
EML4 exon6 ins33;ALK exon 20	EML4 exon14 ins11;del49ALK exon 20	EML4 exon17 ins65;ALK exon 20
EML4 exon20;ALK exon 20	EML4 exon14;del14 ALK exon 20	EML4 exon17;ins30 ALK exon 20
EML4 exon13;ins69 ALK exon 20	EML4 exon14;del38 ALK exon 20	EML4 exon17 ins61;ins34 ALK exon 20
EML4 exon6;ALK exon 20	EML4 exon15;del14 ALK exon 20	EML4 exon3;ins53 ALK exon 20
EML4 exon6;ALK exon 19	EML4 exon18;ALK exon 20	KIF5B exon 24;ALK exon 20
EML4 exon6;ins18 ALK exon 20	EML4 exon17;ins68 ALK exon 20	KIF5B exon17;ALK exon 20
EML4 exon20;ins18 ALK exon 20	EML4 exon2;ins 117 ALK exon 20	KIF5B exon 15;del14 ALK exon 20
TFC exon 4;ALK exon20	KLC1 exon9;ALK exon 20	

**Supplementary Table 2. Molecular characteristic and clinical history
of the patients with different ALK status tested by ARMS-PCR and
NGS**

Patient ID	Baseline characteristics	Baseline biopsy	Treatment	Best response	Efficacy
f182120-1A	Female, 54 year adenocarcinoma pT1bN0M0	NGS: EGFR L858R ARMS-PCR: ALK fusion	surgery	--	DFS: 26 months
1902861	Female, 49 year adenocarcinoma cT4N3M1c	NGS: EGFR19del, TP53, p.R248Q; ARMS-PCR:ALK fusion	osimertinib	PD	PFS: 3 months
P01002-1B	Female, 57 year adenocarcinoma pT1bN0M0	NGS: EGFR19del, ARID1A, p.R1845Q; ARMS-PCR: ALK fusion	surgery	--	lost follow-up
1911802	Male, 51 year adenocarcinoma cTxNxM1	NGS: MLH1 Y379Hl, RAD50, p.E1035K; ARMS-PCR: ALK fusion	pemetrexed + carboplatin+ toripalimab	PR	PFS: 7 months
1910754-1	Female, 40 year adenocarcinoma T2N3Mx(IIIb)	NGS: RET fusion; ARMS-PCR: ALK fusion	--	--	Death
1910882	Male, 49 year adenocarcinoma cT2aN3M1c	NGS: EML4-ALK (E6:A18), BRCA1, p.Y1655Ter ARMS-PCR: ALK negative	crizotinib	PD	PFS: 1 month