

**S3 Table.** Pathogenic non–small cell lung cancer driver mutations in *EGFR*, *KRAS*, and *MET* found by whole exome sequencing in PSC

Gene	Case	Sample	SNP/indel	VAF	Pathogenicity
<i>EGFR</i>	SC07	TCD	c.T2573G:p.L858R	0.368	Known pathogenic
		TSD	c.T2573G:p.L858R	0.569	Known pathogenic
	SC18	TD	c.T2573G:p.L858R, amplification	0.822	Known pathogenic
		SC28	TCD	c.G2125A:p.E709K	0.397
	SC37	TSD	c.G2156C:p.G719A	0.308	Known pathogenic
			c.G1217T:p.X406L	0.062	Neutral by function predictor
			c.G1802T:p.G601V	0.035	Pathogenic by function predictor
			c.G2892T:p.L964F	0.042	Pathogenic by function predictor
	SC14	TCD	c.2316_2321dup:p.H773_V774dup	0.529	Likely pathogenic (ClinVar)
		TSD		0.460	
	SC19	MD		0.035	
		TCD	c.G661T:p.G221W	0.096	Neutral by function predictor
	SC21	TSD		0.102	
TCD		c.2620delG:p.G874fs	0.212	Nonpathogenic by function predictor	
		TSD		0.110	
		TSD	G12C	0.250	Known pathogenic
<i>KRAS</i>	SC29	TSD	G12C	0.250	Known pathogenic
	SC33	TCD	G12V	0.518	Known pathogenic
			TSD		0.313
	MD			0.031	
<i>MET</i>	SC22	TSD	D1010N	0.292	Known pathogenic
	SC27	TCD	D1010N	0.473	Known pathogenic
	SC08	TCD	c.2901_2911del:p.E967fs	0.081	Never reported
	SC17	TSD	c.3028+2T>C (splice site mutation)	0.601	Reported in literature [23,24]
	SC25	TCD	D1010H	0.692	Known pathogenic
TSD			0.862		
		MD		0.029	

Pathogenicity was evaluated as known pathogenic if reported in any of the following databases: [www.cbioportal.org](http://www.cbioportal.org), [oncokb.org](http://oncokb.org), and [clinvar](http://clinvar.org). If not reported, published studies were searched. Unreported *EGFR* mutations were analyzed for functional prediction by FATHMM-MKL in SNPs and SIFT in Indels. All *MET*-mutated cases were tested by ddPCR to be confirmed as *MET* exon 14 skipping mutation. Three of the five *MET*-mutated cases were known pathogenic mutations and the splicing mutation was reported previously in literature. A small deletion in *MET* that caused frameshift mutation (c.2901\_2011del) was a novel finding. EGFR, epidermal growth factor receptor; Indel, insertion and deletion; MD, metastatic tumor; PSC, pulmonary sarcomatoid carcinoma; SNP, single nucleotide pleomorphism; TCD, primary carcinomatous component; TD, primary tumor; TSD, primary sarcomatous component; VAF, variable allelic frequency.