

Supplementary Table 3: Number of sample information

	cancer type	ecDNA positive	ecDNA negative
Number of TCGA samples with WGS data available for ecDNA detection	BLCA	33	79
	BRCA	29	79
	CESC	15	51
	COAD	4	52
	DLBC	1	6
	ESCA	29	31
	GBM	28	19
	HNSC	39	114
	KICH	1	49
	KIRC	1	43
	KIRP	2	34
	LAML	0	40
	LGG	11	74
	LIHC	4	48
	LUAD	22	121
	LUSC	14	36
	OV	11	34
	PRAD	2	119
	READ	0	18
	SARC	17	19
	SKCM	23	113
	STAD	32	95
	THCA	0	136
	UCEC	20	123
	UVM	1	49
Number of TCGA samples with gene expression data available	BLCA	33	79
	BRCA	29	79
	CESC	15	50
	COAD	4	29
	DLBC	1	6
	ESCA	28	30
	GBM	18	11

	cancer type	ecDNA positive	ecDNA negative
	HNSC	39	113
	KICH	1	49
	KIRC	1	43
	KIRP	2	34
	LAML	0	31
	LGG	11	72
	LIHC	4	46
	LUAD	22	119
	LUSC	14	36
	OV	10	25
	PRAD	2	119
	READ	0	2
	SARC	17	19
	SKCM	23	113
	STAD	27	87
	THCA	0	133
	UCEC	1	8
	UVM	1	48