Table S1 The basic clinical information of all patients.

Patient ID	Group	Histology	Gender	Age	Smoking status
P1_Tb	Brain metastasis	LUAD	Male	60	No smoking
P1_TI	Lung tumor	LUAD	Male	60	No smoking
P2_Tb	Brain metastasis	LUAD	Female	58	No smoking
P2_TI	Lung tumor	LUAD	Female	58	No smoking
P3_Tb	Brain metastasis	LNET	Male	55	Smoking
P3_TI	Lung tumor	LUAD	Male	55	Smoking
P4_Tb	Brain metastasis	LUAD	Female	53	No smoking
P4_TI	Lung tumor	LUAD	Female	53	No smoking
P5_Tb	Brain metastasis	LUAD	Male	51	No smoking
P5_TI	Lung tumor	LUAD	Male	51	No smoking
P6_Tb	Brain metastasis	LUAD	Female	49	No smoking
P6_TI	Lung tumor	LUAD	Female	49	No smoking
P7_Tb	Brain metastasis	LUAD	Female	49	No smoking
P7_TI	Lung tumor	LUAD	Female	49	No smoking
P8_Tb	Brain metastasis	LUAD	Male	30	No smoking
P8_TI	Lung tumor	LUAD	Male	30	No smoking
P9_Tb	Brain metastasis	LUAD	Male	51	No smoking
P9_TI	Lung tumor	LUAD	Male	51	No smoking
P10_Tb	Brain metastasis	LUAD	Female	46	No smoking
P10_TI	Lung tumor	LUAD	Female	46	No smoking
P11_Tb	Brain metastasis	LUSC	Male	47	Smoking
P11_TI	Lung tumor	LUSC	Male	47	Smoking
P12_Tb	Brain metastasis	LUAD	Female	61	No smoking
P12_TI	Lung tumor	LUAD	Female	61	No smoking
P13_Tb	Brain metastasis	LUAD	Female	53	No smoking
P13_TI	Lung tumor	LUAD	Female	53	No smoking
P14_Tb	Brain metastasis	LUAD	Male	58	Smoking
P14_TI	Lung tumor	LUAD	Male	58	Smoking
001A_T1	Lung tumor	LUAD	Female	52	No smoking
001A_T2	Brain metastasis	LUAD	Female	52	No smoking
001C_T1	Lung tumor	LUAD	Female	60	No smoking
001C_T2	Brain metastasis	LUAD	Female	60	No smoking
001E_T1	Lung tumor	LUAD	Female	46	No smoking
001E_T2	Brain metastasis	LUAD	Female	46	No smoking
001F_T1	Lung tumor	LUAD	Male	60	Smoking
001F_T2	Brain metastasis	LUAD	Male	60	Smoking
001G_T1	Lung tumor	LUAD	Female	79	No smoking
001G_T2	Brain metastasis	LUAD	Female	79	No smoking
001H_T1	Lung tumor	LUAD	Male	70	Smoking
001H_T2	Brain metastasis	LUAD	Male	70	Smoking

001I_T1	Lung tumor	CCA+LUAD	Male	61	Smoking
001I_T2	Brain metastasis	CCA+LUAD	Male	61	Smoking
001J_T1	Lung tumor	LASC	Female	42	No smoking
001J_T2	Brain metastasis	LASC	Female	42	No smoking
001K_T1	Lung tumor	LUAD	Male	54	Smoking
001K_T2	Brain metastasis	LUAD	Male	54	Smoking
001M_T1	Lung tumor	LUSC	Male	74	Smoking
001M_T2	Brain metastasis	LUSC	Male	74	Smoking
001O_T1	Lung tumor	LUAD	Male	57	No smoking
001O_T2	Brain metastasis	LUAD	Male	57	No smoking
S001B_T1	Lung tumor	LCLC	Female	57	No smoking
S001B_T2	Brain metastasis	LCLC	Female	57	No smoking
S001L_T1	Lung tumor	LASC	Male	57	Smoking
S001L_T2	Brain metastasis	LASC	Male	57	Smoking