

**Supplementary Table 1** List of genes correlated with ALDH2 in LUAD

Correlated Gene	Cytoband	Spearman's Correlation	$p$ -value	$q$ -value
SELENBP1	1q21.3	0.652	3.39e-29	6.76e-25
RAP1GAP	1p36.12	0.596	1.59e-23	1.58e-19
PLA2G10	16p13.12	0.590	5.35e-23	3.55e-19
FOLR1	11q13.4	0.574	1.46e-21	7.25e-18
C16ORF89	16p13.3	0.570	3.38e-21	1.35e-17
KPNA2	17q24.2	-0.561	1.65e-20	4.84e-17
ANLN	7p14.2	-0.561	1.70e-20	4.84e-17
DLGAP5	14q22.3	-0.558	3.18e-20	7.92e-17
PRR11	17q22	-0.555	5.82e-20	1.11e-16
BUB1	2q13	-0.555	5.90e-20	1.11e-16
TMEM125	1p34.2	0.554	6.12e-20	1.11e-16
CKAP2L	2q14.1	-0.552	9.63e-20	1.54e-16
TMEM163	2q21.3	0.552	1.00e-19	1.54e-16
SEMA3A	7q21.11	-0.549	1.78e-19	2.30e-16
GJB1	Xq13.1	0.549	1.81e-19	2.30e-16
CALU	7q32.1	-0.548	1.85e-19	2.30e-16
CFAP221	2q14.2	0.546	2.99e-19	3.50e-16
KIF15	3p21.31	-0.545	3.33e-19	3.68e-16
WDHD1	14q22.2-q22.3	-0.545	3.57e-19	3.74e-16
LDHD	16q23.1	0.541	6.69e-19	6.65e-16
PXMP4	20q11.22	0.540	8.00e-19	7.59e-16
ACSM3	16p12.3	0.539	1.01e-18	9.14e-16
GPRC5C	17q25.1	0.539	1.06e-18	9.14e-16
UHRF1	19p13.3	-0.538	1.12e-18	9.27e-16
DEPDC1	1p31.3	-0.538	1.23e-18	9.82e-16