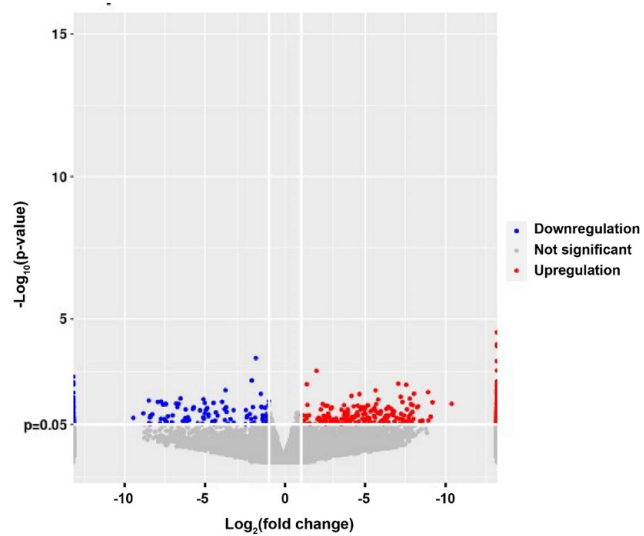


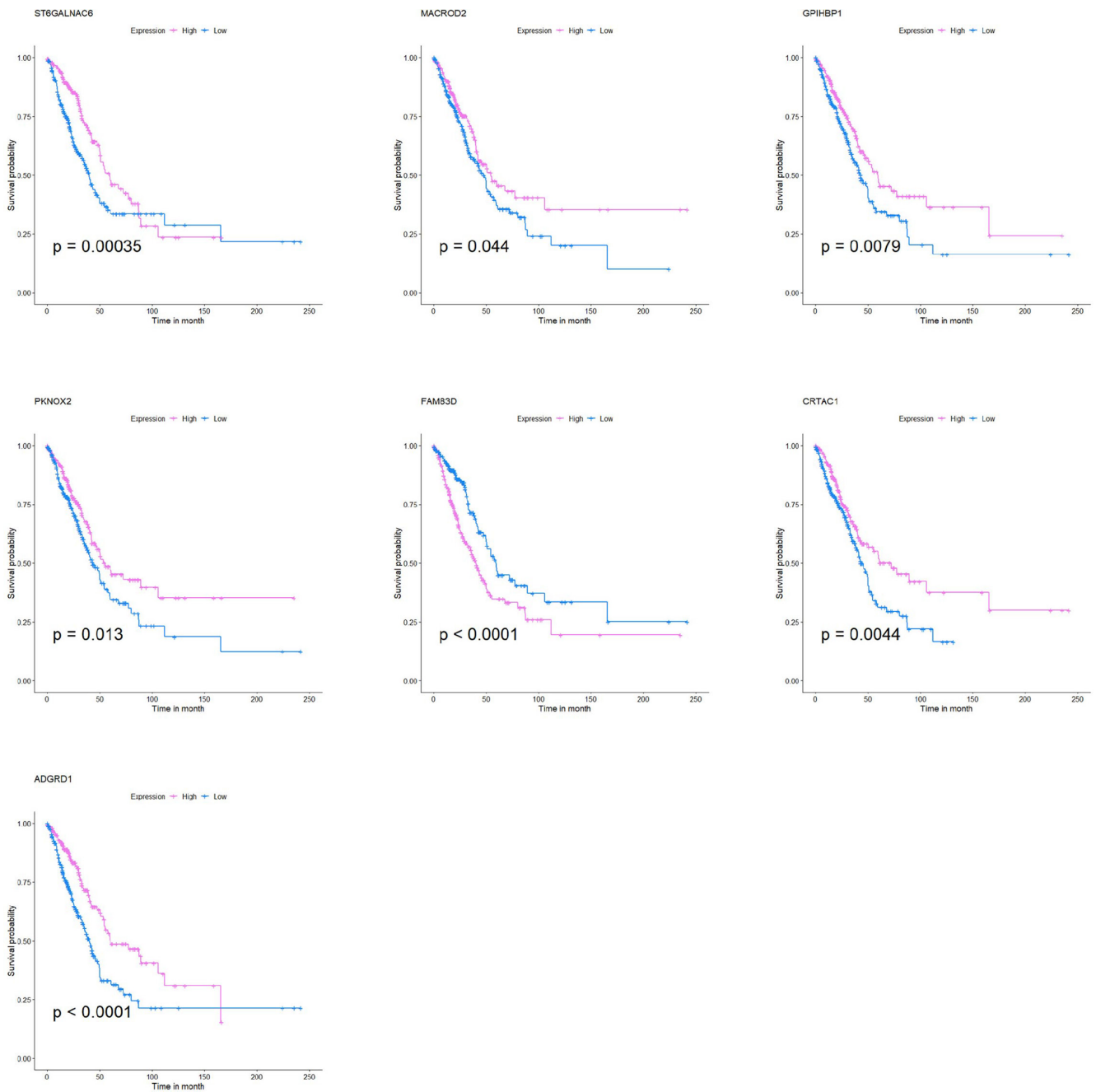
**Table S1** Baseline characteristics of two groups of non-small cell lung cancer patients

Group	Aspirin- (N=10)	Aspirin+ (N=10)	P
Age (years)	63.98±11.91	64.22±8.91	0.8459
Male, n (%)	8 (80)	8 (80)	0.9999
BMI (kg/m <sup>2</sup> )	23.70±2.28	23.71±1.86	0.9658
Smoke, n (%)	7 (70)	8 (80)	0.8421
Hypertension, n (%)	6 (60)	7 (70)	0.7465
Diabetes, n (%)	2 (20)	3 (30)	0.8661
Coronary heart disease, n (%)	1 (10)	10 (100)	0.0054
Aspirin Y	-	5.00 (2.00–10.00)	-
Tissue type, n (%)			0.9999
LUSC	3 (30)	3 (30)	
LUAD	7 (70)	7 (70)	
Clinical classification, n (%)			0.6692
0	2 (20)	1 (10)	
IA	2 (20)	2 (20)	
IB	2 (20)	3 (30)	
IIA	2 (20)	1 (10)	
IIB	1 (10)	1 (10)	
IIIA	1 (10)	2 (20)	
IIIB	0	0	
IIIC	0	0	
IV	0	0	

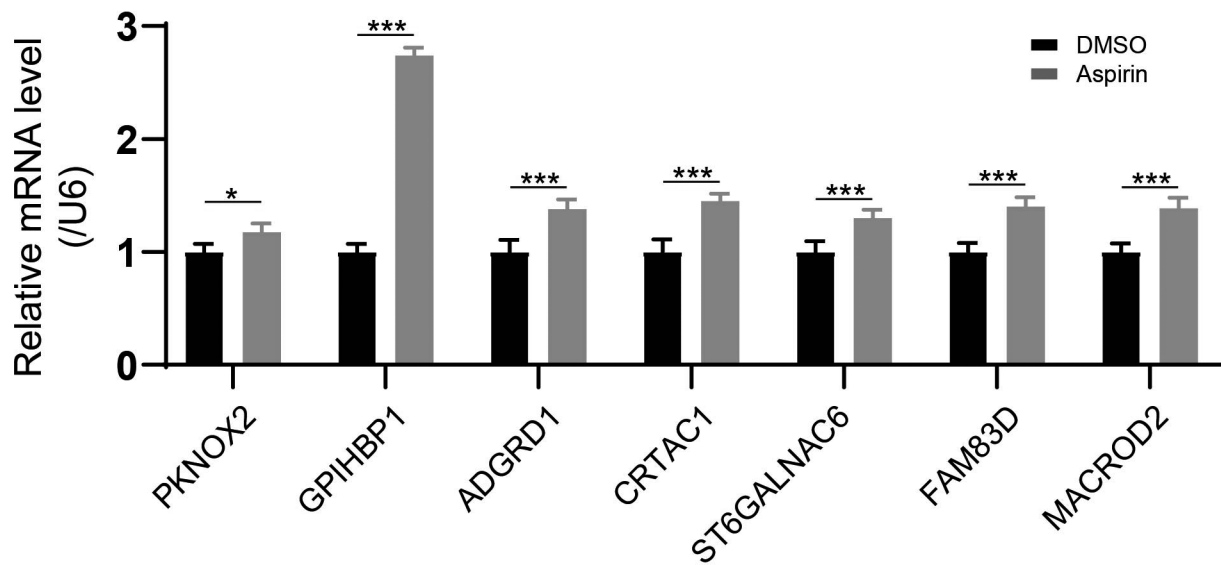
Apart from a history of coronary heart disease, there were no clinical differences between the two groups of patients. Aspirin-: never taken aspirin; Aspirin+: taking aspirin due to coronary heart disease. The duration of aspirin use, counted in years. Continuous variables were summarized as mean ± SD, and categorical variables as frequencies and percentages. Baseline characteristics between patients with aspirin- and aspirin+ were compared using the *t*-test for continuous variables and chi-square test or Fisher's exact test for categorical variables if appropriate, respectively. BMI, body mass index; SD, standard deviation; LUAD, lung adenocarcinoma; LUSC, lung squamous cell carcinoma.



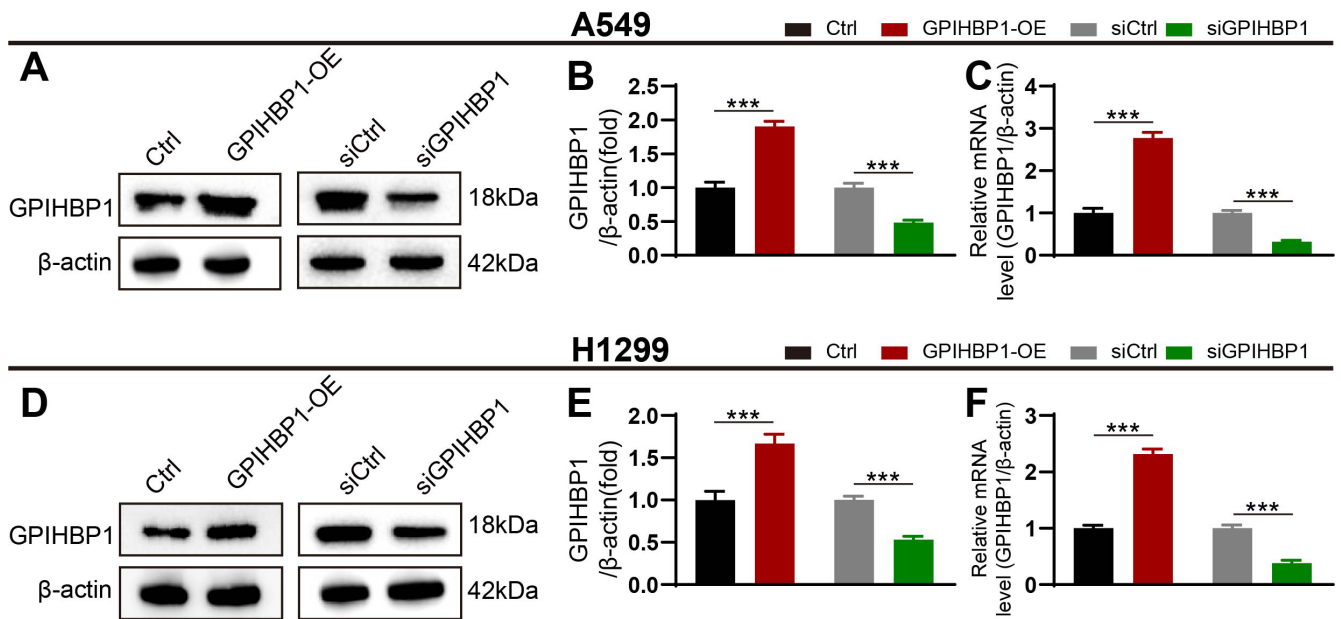
**Figure S1** Volcano plot demonstrating the fold change of identified proteins in patients treated with aspirin (n=10) and patients with no aspirin treatment (n=10).



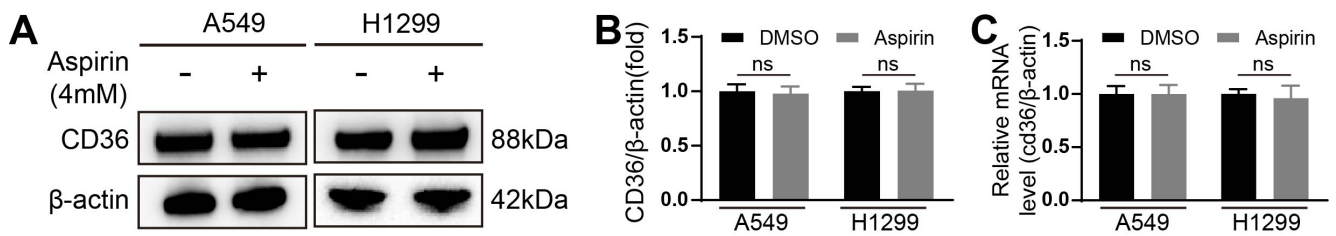
**Figure S2** The prognostic performance of 7 NSCLC prognostic markers in LUAD (patient survival is illustrated). NSCLC, non-small cell lung cancer; LUAD, lung adenocarcinoma. ST6GALNAC6, ST6 (alpha-N-acetyl-neuraminyl-2,3-beta-galactosyl-1,3)-N-acetylgalactosaminide alpha-2,6-sialyltransferase 6; MACROD2, Single single ADP ribohydrolase 2; GPIHBP1, glycosylphosphatidylinositol; PKNOX2, PBX/Knotted 1 homeobox-2; FAM83D, family with sequence similarity 83, member D; CRTAC1, cartilage acidic protein 1; ADGRD1, adhesion G protein-coupled receptor D1.



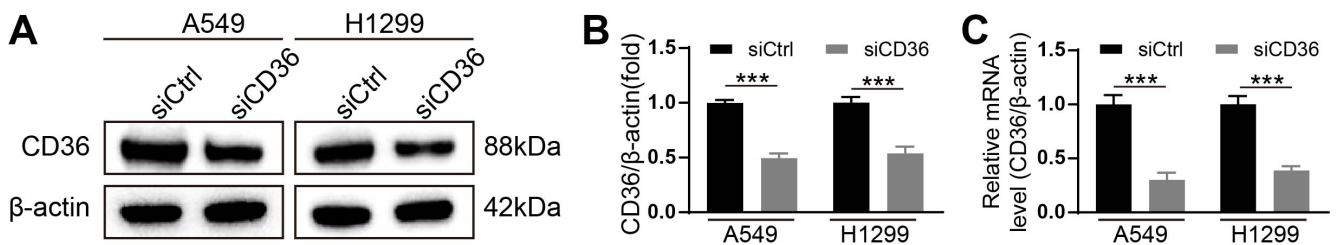
**Figure S3** The mRNA levels of 7 NSCLC prognostic markers in A549 cells. qRT-PCR of the mRNA levels of 7 NSCLC prognostic markers in A549 cells treated with DMSO or 4 mM of aspirin for 24 h (n=4/group). Data are expressed as the mean  $\pm$  standard deviation. \*, P<0.05; \*\*\*, P<0.001. NSCLC, non-small cell lung cancer; GPIHBP1, glycosylphosphatidylinositol HDL-binding protein 1; qRT-PCR, quantitative real time polymerase chain reaction; mRNA, messenger RNA; DMSO, Dimethyl sulfoxide. ST6GALNAC6, ST6 (alpha-N-acetyl-neuraminy-2,3-beta-galactosyl-1,3)-N-acetylgalactosaminide alpha-2,6-sialyltransferase 6; MACROD2, Single ADP ribohydrolase 2; GPIHBP1, glycosylphosphatidylinositol; PKNOX2, PBX/Knotted 1 homeobox-2; FAM83D, family with sequence similarity 83, member D; CRTAC1, cartilage acidic protein 1; ADGRD1, adhesion G protein-coupled receptor D1.



**Figure S4** Efficiency of GPIHBP1 overexpression or knockdown in NSCLC cells. (A,B) Western blotting and quantitative analysis of GPIHBP1 protein expression in A549 cells via lentiviral transfection or small interfering RNA (n=4/group). (C) qRT-PCR of GPIHBP1 protein expression in A549 cells via lentiviral transfection or small interfering RNA (n=4/group). (D,E) Western blotting and quantitative analysis of GPIHBP1 protein expression in H1299 cells via lentiviral transfection or small interfering RNA (n=4/group). (F) qRT-PCR of GPIHBP1 protein expression in H1299 cells via lentiviral transfection or small interfering RNA (n=4/group). Data are shown as the mean  $\pm$  standard deviation; \*\*\*,  $P < 0.001$ . NSCLC, non-small cell lung cancer; GPIHBP1, glycosylphosphatidylinositol HDL-binding protein 1; qRT-PCR, quantitative real time polymerase chain reaction; OE, overexpression.



**Figure S5** Aspirin did not affect the expression of CD36 in NSCLC cells. (A,B) Western blotting and quantification of CD36 expression in A549 cells or H1299 cells treated with DMSO or aspirin (4 mM) treatment for 24 h (n=4/group). (C) qRT-PCR of CD36 mRNA levels in A549 cells or H1299 cells treated with DMSO or aspirin (4 mM) treatment for 24 h (n=4/group). Data are shown as the mean  $\pm$  standard deviation. ns, no significant difference. NSCLC, non-small cell lung cancer; qRT-PCR, quantitative real time polymerase chain reaction; mRNA, messenger RNA; DMSO, Dimethyl dimethyl sulfoxide.



**Figure S6** Efficiency of CD36 knockdown in NSCLC cells. (A,B) Western blotting and quantitative analysis of GPIHBP1 protein expression in A549 cells or H1299 cells treated with small interfering RNA (n=4/group). (C) qRT-PCR of GPIHBP1 protein expression in A549 cells or H1299 cells treated with small interfering RNA (n=4/group). Data are expressed as the mean  $\pm$  standard deviation. \*\*\*,  $P < 0.001$ . NSCLC, non-small cell lung cancer; GPIHBP1, glycosylphosphatidylinositol HDL-binding protein 1; qRT-PCR, quantitative real time polymerase chain reaction.