

Table S1. Pathological and clinical characteristics of TNBC patients from the FFPE cohort used for validation ($n = 51$).

Feature	Frequency (%)
Age (years)	
Mean (range)	59.26 (31–81)
Tumour size (cm)	
Mean (range)	2.2 (0.3–10.0)
Lymph node involvement	
No	29/51 (57.0)
Yes	21/51 (41.0)
n.a.	1/51 (2.0)
Stage	
I	11/51 (21.0)
IIA	22/51 (43.0)
IIB	6/51 (12.0)
IIIA	8/51 (16.0)
IIIC	3/51 (6.0)
n.a.	1/51 (2.0)
Progression-free survival (months)	
Mean (range)	81.7 (10.3–216.9)
Progression	
No	34/51 (66.6)
Yes	16/51 (31.4)
n.a.	1/51 (2.0)
Overall survival (months)	
Mean (range)	89 (10.3–216.9)
Outcome	
Exitus	15/51 (29.0)
n.a.	1/51 (2.0)
Chemotherapy	
No	8/51 (16.0)
Yes	41/51 (80.0)
n.a.	2/51 (4.0)
Radiotherapy	
No	11/51 (21.0)
Yes	38/51 (74.0)
n.a.	2/51 (4.0)

n.a.: non-available data.

Table S2. Description of the 35 differentially methylated probes with predictive value of TNBC diagnosis. Each $\Delta\beta$ value was calculated by subtracting the mean β value of TNBC (TN) samples minus the mean β value of samples from non-neoplastic breast samples (N), patients with other BC subtypes (BC), or each of them: Luminal A (LA), Luminal B/HER2 negative (LB), Luminal B/HER2 positive (TN) and HER2 (H). Probes are sorted by the $\Delta\beta$ in TNBC minus $\Delta\beta$ in N.

Probe Name	Gene Name	$\Delta\beta$ (TN-N)	$\Delta\beta$ (TN-BC)	$\Delta\beta$ (TN-LA)	$\Delta\beta$ (TN-LB)	$\Delta\beta$ (TN-LH)	$\Delta\beta$ (TN-H)
cg15928106	<i>FLJ43663</i>	-0.39	-0.38	-0.42	-0.46	-0.39	-0.24
cg05908105	<i>NET1</i>	-0.37	-0.07	-0.08	-0.02	0.00	-0.17
cg26026748	<i>PBX1</i>	-0.35	-0.05	-0.03	-0.10	-0.02	-0.04
cg16476991	<i>RASA3</i>	-0.34	-0.19	-0.20	-0.15	-0.22	-0.19
cg25766247		-0.32	0.00	-0.02	0.03	0.01	-0.03
cg05468843	<i>IL10RA</i>	-0.30	-0.41	-0.38	-0.44	-0.44	-0.38

cg09323975		-0.25	-0.14	-0.13	-0.15	-0.11	-0.15
cg07756483	<i>KCNN4</i>	-0.22	-0.32	-0.34	-0.36	-0.40	-0.17
cg00585901	<i>EFNA4</i>	-0.17	-0.20	-0.21	-0.19	-0.25	-0.14
cg03471047		-0.14	-0.04	-0.01	0.01	-0.05	-0.09
cg25252598		-0.14	-0.09	-0.13	0.00	-0.16	-0.07
cg01794555	<i>LCP1</i>	-0.13	-0.07	-0.06	-0.13	-0.08	-0.03
cg17662182		-0.09	-0.02	-0.01	-0.01	-0.01	-0.06
cg07245635	<i>S100A4</i>	0.12	-0.03	-0.04	-0.03	-0.02	-0.02
cg00534684	<i>PTAFR</i>	0.13	0.01	0.01	0.00	0.01	0.01
cg00913879	<i>DNAH17</i>	0.13	-0.04	-0.06	-0.05	-0.05	-0.01
cg14379490	<i>FAM120A</i>	0.14	0.02	0.01	0.01	0.03	0.05
cg05242402	<i>MICALL2</i>	0.16	0.03	0.03	0.02	0.01	0.06
cg04091078	<i>SLCO1C1</i>	0.17	0.04	0.03	0.09	0.03	0.02
cg18397308	<i>C19orf50</i>	0.17	0.00	0.00	-0.01	0.00	0.02
cg22239325	<i>MBP</i>	0.17	0.07	0.02	0.09	0.15	0.05
cg07452625	<i>SPG7</i>	0.17	0.00	0.00	-0.04	-0.01	0.04
cg25590335	<i>PKN1</i>	0.18	0.00	0.00	-0.02	0.01	0.01
cg17082405	<i>PLEC1</i>	0.18	0.00	-0.01	-0.01	-0.01	0.04
cg13521205	<i>FAM129B</i>	0.19	-0.02	-0.03	-0.05	-0.04	0.03
cg15331383	<i>RPTOR</i>	0.20	-0.03	-0.01	-0.07	-0.05	0.01
cg27478167	<i>HEATR2</i>	0.20	-0.01	-0.01	-0.05	-0.02	0.02
cg25588480	<i>MINK1</i>	0.20	0.01	0.01	0.00	0.00	0.04
cg00139947	<i>TOP1MT</i>	0.20	0.02	0.02	-0.01	0.00	0.05
cg03630790	<i>TGFBR2</i>	0.20	0.02	0.04	0.00	-0.01	0.04
cg02681842	<i>PLEC1</i>	0.23	0.01	0.02	-0.03	-0.02	0.06
cg01023808	<i>TECPR1</i>	0.23	0.01	0.02	0.00	0.00	0.01
cg13707793	<i>CXXC5</i>	0.27	0.04	0.02	0.10	0.00	0.04
cg03723716	<i>PPP2R1B</i>	0.29	0.08	0.05	0.13	0.02	0.14
cg15555527	<i>ANTXR2</i>	0.36	NA	NA	NA	NA	NA