

Supplementary Table S2. Prognostic value for IDFS by treatment arm of biomarker gene expression levels (>median vs. ≤median and continuous) in post-NAT surgical RNA-evaluable tissue samples. Analysis is adjusted for tumor content. One sample could not be included because there was insufficient information on tumor content.

Treatment arm	Gene/signature	Total n ^a	Subgroup n (>median vs. ≤median)	Total events	Subgroup events (>median vs. ≤median)	Hazard ratio	95% Confidence interval	Hazard ratio	95% Confidence interval
						(>median vs. ≤median)		(continuous)	
Trastuzumab	ERBB2	397	200 vs. 197	102	70 vs. 32	2.02	1.32–3.11	1.34	1.09-1.65
T-DM1		417	207 vs. 210	47	26 vs. 21	1.01	0.56–1.83	1.17	0.86-1.61
Trastuzumab	CD274	397	202 vs. 195	102	39 vs. 63	0.66	0.44–1.00	0.90	0.71-1.15
T-DM1		417	204 vs. 213	47	22 vs. 25	1.05	0.59–1.87	0.93	0.63-1.38
Trastuzumab	CD8A	397	188 vs. 209	102	41 vs. 61	0.86	0.57–1.29	0.91	0.71-1.17
T-DM1		417	218 vs. 199	47	25 vs. 22	1.34	0.74–2.43	1.22	0.82-1.81
Trastuzumab	Teff signature	397	190 vs. 207	102	45 vs. 57	0.99	0.67–1.48	0.98	0.80-1.20
T-DM1		417	216 vs. 201	47	26 vs. 21	1.29	0.72–2.31	1.12	0.81-1.55
Trastuzumab	Three-gene signature	397	193 vs. 204	102	47 vs. 55	0.96	0.65–1.42	1.01	0.83-1.24
T-DM1		417	213 vs. 204	47	28 vs. 19	1.40	0.78–2.51	10.5	0.78-1.42
Trastuzumab	Five-gene signature	397	197 vs. 200	102	48 vs. 54	1.01	0.68–1.50	1.00	0.82-1.22
T-DM1		417	209 vs. 208	47	30 vs. 17	1.89	1.04–3.42	1.11	0.81-1.51
Trastuzumab	Th1 cytokine signature	397	201 vs. 196	102	53 vs. 49	0.94	0.64–1.40	0.98	0.81-1.19
T-DM1		417	206 vs. 211	47	31 vs. 16	1.81	0.98–3.35	1.34	0.96-1.86
Trastuzumab	Checkpoint inhibitor signature	397	204 vs. 193	102	40 vs. 62	0.69	0.46–1.04	0.98	0.80-1.22
T-DM1		417	202 vs. 215	47	25 vs. 22	1.31	0.74–2.34	1.10	0.77-1.57
Trastuzumab	B cell signature	397	200 vs. 197	102	48 vs. 54	1.21	0.80–1.83	0.98	0.79-1.21
T-DM1		417	206 vs. 211	47	22 vs. 25	1.07	0.60–1.92	0.93	0.68-1.28

Abbreviations: IDFS, invasive disease-free survival; IFN γ , interferon gamma; T-DM1, trastuzumab emtansine; checkpoint inhibitor signature (PD-L1/PD-L2/IDO); five-gene signature (PD-L1/granzymeB/CD8/IFN γ /CXCL9); Teff, T-effector signature (CD8/granzymeA/granzymeB/perforin/IFN γ); Th1 cytokine signature (CXCL9/CXCL10/CXCL11); three-gene signature (PD-L1/IFN γ /CXCL9); B cell signature (CD19/CD79A/FCRL5/MS4A1/POU2AF1/STAP1).

^aTumor content not available for one patient with a surgical sample available.