

Supplementary Table 1. Classification of breast cancer cell line subtypes and response to neratinib (IC₅₀).

Cell Line	IC₅₀ value (μM)	IC₅₀ SE	Breast Cancer Subtype	ER Status
BT-474	<0.005	n/a	HER2+	Positive
EFM-192A	<0.005	n/a	HER2+	Positive
HCC1569	<0.005	n/a	HER2+	Negative
HCC1954	<0.005	n/a	HER2+	Negative
MDA-MB-175	<0.005	n/a	Luminal	Positive
MDA-MB-361	<0.005	n/a	HER2+	Positive
SK-BR-3	<0.005	n/a	HER2+	Negative
UACC-812	<0.005	n/a	HER2+	Positive
UACC-893	<0.005	n/a	HER2+	Positive
SUM-225	0.01	0.00	HER2+	Negative
SUM-190	0.01	0.00	HER2+	Positive
ZR-75-1	0.03	0.02	Luminal	Positive
HCC70	0.03	0.20	Triple Negative	Negative
BT-20	0.07	0.04	Triple Negative	Negative
MDA-MB-453	0.09	0.00	HER2+	Negative
HCC1187	0.10	0.07	Triple Negative	Negative
EFM-19	0.11	0.07	Luminal	Positive
T-47D	0.16	0.04	Luminal	Positive
MDA-MB-134	0.17	0.00	Luminal	Positive
HCC38	0.25	0.12	Triple Negative	Negative
MDA-MB-435	0.33	0.06	Triple Negative	Negative
MDA-MB-468	0.33	0.80	Triple Negative	Negative
CAMA-1	0.37	0.52	Luminal	Positive
MDA-MB-436	0.41	0.00	Triple Negative	Negative
MCF-7	0.41	0.03	Luminal	Positive
MDA-MB-415	0.42	0.00	Luminal	Positive
HCC1806	0.44	0.13	Triple Negative	Negative
HCC1395	0.49	0.52	Triple Negative	Negative
HCC1937	0.50	0.26	Triple Negative	Negative
HCC1143	0.54	0.19	Triple Negative	Negative
UACC-732	0.65	0.37	HER2+	Positive
MDA-MB-231	1.00	0.17	Triple Negative	Negative
MDA-MB-157	1.12	0.00	Triple Negative	Negative
BT-549	1.14	0.53	Triple Negative	Negative
KPL-1	1.89	0.16	Luminal	Positive
CAL-51	1.89	2.06	Triple Negative	Negative

Abbreviation: n/a – not applicable

Supplementary Table 2. Relationship between neratinib sensitivity (IC₅₀ values) and potential biomarkers in a panel of 11 HER2 amplified breast cancer cell lines. Correlations were performed using the Spearman's Rank or Mann Whitney *U* test.

Marker	p value	r
EGFR	0.720	0.115
pEGFR	0.071	-0.600
HER2	0.038	-0.665
p-HER2	0.042	-0.643
p95-HER2	0.098	-0.523
HER3	0.796	-0.820
pHER3	0.433	-0.248
IGF-IR	0.239	0.373
p-IGF-IR	0.478	-0.236
AKT	0.863	-0.055
pAKT	0.546	-0.191
p27	0.966	0.014
PI3K status	0.340	NA*
PTEN status (low/high)	0.200	NA
ER status	0.140	NA

*NA – not applicable