

Supplementary Table S1: Datasets used in the study (n=40)

Datasets used in the study:

Dataset *	Data source	Number of samples	Reference (PubMed link)	Ref.
Stockholm	GSE1456	159	http://www.ncbi.nlm.nih.gov/pubmed/16280042	1
EORTC	GSE1561	49	http://www.ncbi.nlm.nih.gov/pubmed/15897907	2
Rotterdam-EMC344	GSE2034, GSE5327	344	http://www.ncbi.nlm.nih.gov/pubmed/15721472_17420468	3,4
expO	GSE2109	301	http://www.intgen.org/expo/	
New York	GSE2603	99	http://www.ncbi.nlm.nih.gov/pubmed/16049480	5
Oxford-Untreated	GSE2990 (n=61), GSE6532 (n=8)	69	http://www.ncbi.nlm.nih.gov/pubmed/16478745	6
Uppsala	GSE3494 (n=251), GSE6232 (n=5), GSE4922 (n=1), GSE2990 (n=1)	258	http://www.ncbi.nlm.nih.gov/pubmed/16141321_2017079448	7,8
Boston	GSE3744	40	http://www.ncbi.nlm.nih.gov/pubmed/16473279	9
Signapore	GSE5364	183	http://www.ncbi.nlm.nih.gov/pubmed/18636107	10
Edinburgh	GSE5462	116	http://www.ncbi.nlm.nih.gov/pubmed/17885619	11
London	GSE6532	87	http://www.ncbi.nlm.nih.gov/pubmed/17401012	12
Oxford-Tamoxifen	GSE6532	109	http://www.ncbi.nlm.nih.gov/pubmed/16478745	6
Berlin	GSE6596	24	http://www.ncbi.nlm.nih.gov/pubmed/17410534	13
TransBIG	GSE7390	198	http://www.ncbi.nlm.nih.gov/pubmed/17545524	14
London-2	GSE9195	77	http://www.ncbi.nlm.nih.gov/pubmed/18498629	15
Tampa	GSE10780	39	http://www.ncbi.nlm.nih.gov/pubmed/19266279	16
Mainz	GSE11121	200	http://www.ncbi.nlm.nih.gov/pubmed/18593943	17
Veridex-Tam	GSE12093	136	http://www.ncbi.nlm.nih.gov/pubmed/18821012	18
Rotterdam-EMC204	GSE12276	204	http://www.ncbi.nlm.nih.gov/pubmed/19421193	19
Genentech	GSE12763	30	http://www.ncbi.nlm.nih.gov/pubmed/19567590	20
Paris	GSE13787	23	http://www.ncbi.nlm.nih.gov/pubmed/19055754	21
BIG1-98	GSE16391	55	http://www.ncbi.nlm.nih.gov/pubmed/19573224	14
TOP	GSE16446	120	http://www.ncbi.nlm.nih.gov/pubmed/21422418	22
MDA100	GSE16716	100	http://www.ncbi.nlm.nih.gov/pubmed/20064235	23
SET1	GSE17705	103	http://www.ncbi.nlm.nih.gov/pubmed/20697068	24
SET2	GSE17705	195	http://www.ncbi.nlm.nih.gov/pubmed/20697068	24
IPC_HER2	GSE17907	51	http://www.ncbi.nlm.nih.gov/pubmed/20932292	25
Seattle	GSE18728	21	http://www.ncbi.nlm.nih.gov/pubmed/20012355	26
Boston_Neo-Cisplatin	GSE18864	84	http://www.ncbi.nlm.nih.gov/pubmed/20100965	27
Boston_2	GSE19615	115	http://www.ncbi.nlm.nih.gov/pubmed/20098429	28
StLouis	GSE19697	24	http://www.ncbi.nlm.nih.gov/pubmed/19967557	29
Edinburgh	GSE20181	60	http://www.ncbi.nlm.nih.gov/pubmed/20697427	11
MAQC_add_GSE20194	GSE20194	45	http://www.ncbi.nlm.nih.gov/pubmed/20676074	30
MDA_139	GSE20271 (n=139 additional to MDA133, GSE16716, and GSE20194)	139	http://www.ncbi.nlm.nih.gov/pubmed/20829329	31
IPC	GSE21653	266	http://www.ncbi.nlm.nih.gov/pubmed/20490655	32
St-Cloud	GSE22035	43	http://www.ncbi.nlm.nih.gov/pubmed/21209903	33
Nashville	GSE22513	28	http://www.ncbi.nlm.nih.gov/pubmed/20068102	34
San Francisco	http://www.ebi.ac.uk/arrayexpress/experiments/E-TABM-158	118	http://www.ncbi.nlm.nih.gov/pubmed/17157792	35
Neo-Trastuzumab	https://array.nci.nih.gov/caarray/project/harri-00137	22	http://www.ncbi.nlm.nih.gov/pubmed/17317830	36
MDA133	http://bioinformatics.mdanderson.org/pubdata.html	133	http://www.ncbi.nlm.nih.gov/pubmed/16896004	37
TOTAL:		4467		

*** Remarks:** The complete *TransBIG* dataset contains independent replicate samples from 19 patients of the *Uppsala* cohort and 22 patients of the *Oxford-Untreated* cohort. Datasets "*MAQC_add_GSE20194*" and "*MDA_139*" contain only the subsets of 45 and 139 nonredundant samples from the GEO series GSE20194 and GSE20271, respectively, which are not already covered by the *MDA133* and *MDA100* datasets.

References to Supplementary Table S1

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Supplementary Table S3: Multivariate Cox regression analysis of survival according to ASAH1 expression and standard parameters

Parameter	Numbers ^a	HR	95% CI	P-Value ^b
ASAH1 (High vs. Low)	107 vs. 763	0.68	0.46-1.02	0.063
ER (positive vs. negative)	518 vs. 352	1.31	0.99-1.73	0.063
PgR (positive vs. negative)	467 vs. 403	0.68	0.53-0.89	0.005
HER2 (positive vs. negative)	142 vs. 728	1.06	0.77-1.45	0.73
Lymph node status (LNN vs. N+)	662 vs. 208	0.81	0.61-1.07	0.14
Age (>50 vs. ≤50)	466 vs. 404	1.09	0.86-1.37	0.50
tumor size (≤1cm vs. >1cm)	238 vs. 632	0.87	0.66-1-14	0.30
Histological grading (G3 vs. G1&G2)	484 vs. 386	1.11	0.87-1.42	0.39

^a For 870 of the 2590 samples with follow up data information on all eight parameters was available.

^b Significant P-Values are given in bold.