

Supplementary Table 1. 203 studies passed the automatic filter in GEO

GEO Series	Cancer Study	Over 100 Patient	treatment inf	clinical outcome	cancer type	platform
GSE17920	Yes	Yes	Yes	Yes	hodgkin lymphoma	GPL570
GSE16446	Yes	Yes	Yes	Yes	Breast Cancer	GPL570
GSE4779	Yes	Yes	Yes	Yes	breast cancer	GPL570
GSE20194	Yes	Yes	Yes	Yes	Breast Cancer	GPL96
GSE20271	Yes	Yes	Yes	Yes	Breast Cancer	GPL96
GSE19615	Yes	Yes	Yes	Yes	breast cancer	GPL570
GSE12093	Yes	Yes	Yes	Yes	Breast Cancer	GPL96
GSE17705	Yes	Yes	Yes	Yes	Breast Cancer	GPL96
GSE2990	Yes	Yes	Yes	Yes	Breast Cancer	GPL96
GSE6532	Yes	Yes	Yes	Yes	Breast Cancer	GPL96and97and570
GSE1456	Yes	Yes	Yes	Yes	Breast Cancer	GPL96and97
GSE17538/GSE17536	Yes	Yes	Yes	Yes	Colon Cancer	GPL570
GSE9891/GSE9899	Yes	Yes	Yes	Yes	ovarian cancer	GPL570
GSE24080/GSE4581	Yes	Yes	Yes	Yes	Multiple myeloma	GPL570
GSE2351	Yes	Yes	Yes	Yes	ALL	GPL96
GSE10255	Yes	Yes	Yes	Yes	ALL	GPL96
GSE12995	Yes	Yes	Yes	Yes	ALL	GPL96
GSE11877	Yes	Yes	Yes	Yes	Pediatric ALL	GPL570
GSE12417	Yes	Yes	Yes	Yes	AML	GPL96and570
GSE10846	Yes	Yes	Yes	Yes	DLBCL	GPL570
GSE11318	Yes	Yes	Yes	Yes	DLBCL	GPL570
GSE17372/GSE10864	Yes	Yes	Yes	Yes	AIDS related lymphoma	GPL570
GSE635	Yes	Yes	Yes	NA	ALL	GPL96
GSE4922	Yes	Yes	Yes	NA	Breast Cancer	GPL96and97
GSE4475	Yes	Yes	NA	Yes	DLBCL	GPL96
GSE14468	Yes	Yes	NA	Yes	AML	GPL570
GSE14333	Yes	Yes	NA	Yes	colorectal cancer	GPL570
GSE11121	Yes	Yes	NA	Yes	Breast Cancer	GPL96
GSE4271	Yes	Yes	NA	Yes	glioma	GPL96and97
GSE2603	Yes	Yes	NA	Yes	Breast Cancer	GPL96
GSE21124/GSE21122	Yes	Yes	NA	Yes	Soft-tissue sarcoma	GPL96
GSE7390	Yes	Yes	NA	Yes	breast cancer	GPL96
GSE15460/GSE15459	Yes	Yes	NA	Yes	Gastric Cancer	GPL570
GSE12276	Yes	Yes	NA	Yes	breast cancer	GPL570
GSE3494	Yes	Yes	NA	Yes	Breast Cancer	GPL96and97
GSE21653	Yes	Yes	NA	Yes	breast cancer	GPL570
GSE13041	Yes	Yes	NA	Yes	glioblastomas	GPL96/GPL570/GPL8300
GSE16131	Yes	Yes	NA	Yes	Follicular Lymphoma	GPL96and97
GSE2034	Yes	Yes	NA	Yes	Breast Cancer	GPL96
GSE10320	Yes	Yes	NA	Yes	FHWT	GPL96

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GSE15695	Yes	Yes	NA	NA	multiple myeloma	GPL570
GSE6401	Yes	Yes	NA	NA	multiple myeloma	GPL96
GSE5460	Yes	Yes	NA	NA	Breast Cancer	GPL570
GSE20916	Yes	Yes	NA	NA	colon tumor	GPL570
GSE19069	Yes	Yes	NA	NA	lymphomas	GPL570
GSE8218	Yes	Yes	NA	NA	prostate cancer	GPL96
GSE17951	Yes	Yes	NA	NA	prostate cancer	GPL570
GSE13294	Yes	Yes	NA	NA	colorectal cancers	GPL570
GSE6477	Yes	Yes	NA	NA	plasma cell neoplasm	GPL96
GSE10358	Yes	Yes	NA	NA	AML	GPL570
GSE21050/GSE16382	Yes	Yes	NA	NA	soft tissue sarcomas	GPL570
GSE21349	Yes	Yes	NA	NA	multiple myeloma	GPL570
GSE3218	Yes	Yes	NA	NA	germ cell tumors	GPL96and97
GSE19987	Yes	Yes	NA	NA	Pheochromocytoma	GPL96and571
GSE10780	Yes	Yes	NA	NA	Breast Cancer	GPL570
GSE23980	Yes	Yes	NA	NA	Soft-tissue sarcoma	GPL570
GSE13351	Yes	Yes	NA	NA	ALL	GPL570
GSE13425/GSE635	Yes	Yes	NA	NA	ALL	GPL96
GSE17855	Yes	Yes	NA	NA	AML	GPL570
GSE19784	Yes	Yes	NA	NA	Multiple myeloma	GPL570
GSE17459	Yes	Yes	NA	NA	ALL	GPL570/96
GSE15347/GSE14471	Yes	Yes	NA	NA	AML	GPL96
GSE15434	Yes	Yes	NA	NA	AML-NK	GPL570
GSE13204/GSE13159	Yes	Yes	NA	NA	Leukemia	GPL570
GSE17703	Yes	Yes	NA	NA	ALL	GPL571
GSE14062	Yes	Yes	NA	NA	ALL and AML	GPL570
GSE15061	Yes	Yes	NA	NA	AML	GPL570
GSE16015	Yes	Yes	NA	NA	AML	
GSE16122/GSE13591	Yes	Yes	NA	NA	multiple myeloma	GPL96
GSE11135	Yes	Yes	NA	NA	AML	GPL570
GSE6891	Yes	Yes	NA	NA	AML	GPL570
GSE1159	Yes	Yes	NA	NA	ALL	GPL96
GSE7307	Yes	Yes	NA	NA	different diseases	GPL570
GSE12630	Yes	Yes	NA	NA	14 different	GPL96orGPL7820
GSE10139	Yes	No	Yes	Yes	CLL	GPL96/GPL570
GSE20181	Yes	No	Yes	Yes	Breast Cancer	GPL96
GSE5462	Yes	No	Yes	Yes	Breast Cancer	GPL96
GSE18105	Yes	No	Yes	Yes	colorectal cancer	GPL570
GSE6861	Yes	No	Yes	Yes	breast cancer	GPL1352
GSE19188	Yes	No	NA	Yes	NSCLC	GPL570

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GSE17907	Yes	No	NA	Yes	Breast Cancer	GPL570
GSE4412	Yes	No	NA	Yes	gliomas	GPL96and97
GSE19578	Yes	No	NA	NA	gliomas	GPL570
GSE7055	Yes	No	NA	NA	prostate cancer	GPL571
GSE19246	Yes	No	NA	NA	DLBCL	GPL570
GSE4290	Yes	No	NA	NA	glioblastomas	GPL570
GSE21687	Yes	No	NA	NA	ependymoma	GPL570
GSE14323	Yes	No	NA	NA	HCC	GPL570
GSE20565	Yes	No	NA	NA	primary and secondary ovarian tumors	GPL570
GSE9829	Yes	No	NA	NA	hepatocellular carcinoma	GPL570
GSE10072	Yes	No	NA	NA	lung adenocarcinoma	GPL96
GSE6008	Yes	No	NA	NA	ovarian cancer	GPL96
GSE14994	Yes	No	NA	NA	ccRCC	GPL570
GSE13319	Yes	No	NA	NA	Leiomyoma	GPL570
GSE22529	Yes	No	NA	NA	CLL	GPL96and97
GSE23400	Yes	No	NA	NA	ESCC	GPL96and97
GSE14520	Yes	No	NA	NA	HCC	GPL570/GPL3921
GSE12195	Yes	No	NA	NA	DLBCL	GPL570
GSE16746	Yes	No	NA	NA	B-CLL	GPL96
GSE17306	Yes	No	NA	NA	Multiple myeloma	GPL570
GSE10792	Yes	No	NA	NA	ALL	GPL570
GSE3912	Yes	No	NA	NA	ALL	GPL96
GSE5350	Cell Lines	NA	NA	NA	MAQC	GPL570
GSE4536	Cell Lines	NA	NA	NA	glioblastomas	GPL570
GSE3284	Cell Lines	NA	NA	NA	health men and women	GPL96and97and570
GSE2109	Cell Lines	NA	NA	NA	Mixture of different diseases	GPL570
GSE15396	Cell Lines	NA	NA	NA	Peripheral blood mononuclear, DU145, and HCT116 cells	GPL570
GSE8332	Cell Lines	NA	NA	NA	Cell lines	GPL570
GSE10890	Cell Lines	NA	NA	NA	Breast Cancer Cell Line	GPL570
GSE10843	Cell Lines	NA	NA	NA	Cancer cell line	GPL570
GSE12662	Cell Lines	NA	NA	NA	cell lines	GPL570
GSE11582	Cell Lines	NA	NA	NA	Lymphoblastoid Cell Lines	GPL96
GSE9936	Cell Lines	NA	NA	NA	MCF-7 human breast cancer cells	GPL96
GSE5720	Cell Lines	NA	NA	NA	NCI60 cell lines	GPL96
GSE4824	Cell Lines	NA	NA	NA	lung cancer cell lines	GPL96and97and570
GSE995	Cell Lines	NA	NA	NA	acute myeloid leukemia cells	GPL96/GPL80
GSE25429	Cell Lines	NA	NA	NA	ovarian cancer cells	GPL570/GPL3921
GSE23120	Cell Lines	NA	NA	NA	human lymphoblastoid cell lines	GPL570
GSE16387	No					

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GSE24223	No					
GSE20752	No					
GSE24427	No					
GSE24277/GSE23120	No					
GSE11906	No					
GSE22886	No					
GSE21521	No					
GSE22148	No					
GSE19743	No					
GSE16837	No					
GSE21374	No					
GSE13070	No					
GSE19519	No					
GSE19392	No					
GSE20262	No					
GSE19429	No					
GSE20060	No					
GSE14280	No					
GSE17183	No					
GSE16134	No					
GSE16879	No					
GSE10026	No					
GSE18323	No					
GSE17156	No					
GSE16214	No					
GSE13849	No					
GSE13501	No					
GSE16129	No					
GSE16028	No					
GSE11342	No					
GSE11375	No					
GSE12626	No					
GSE14083	No					
GSE13355	No					
GSE10334	No					
GSE13904	No					
GSE13732	No					
GSE12288	No					
GSE11882	No					
GSE10313	No					

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GSE12649	No					
GSE7638	No					
GSE11909	No					
GSE11907	No					
GSE11908	No					
GSE11917	No					
GSE10760	No					
GSE6095	No					
GSE9676	No					
GSE4302	No					
GSE7895	No					
GSE8507	No					
GSE9006	No					
GSE8650	No					
GSE8052	No					
GSE6296	No					
GSE7123	No					
GSE6613	No					
GSE3846	No					
GSE5060	No					
GSE5258	No					
GSE5406	No					
GSE5281	No					
GSE4607	No					
GSE3526	No					
GSE3790	No					
GSE3307	No					
GSE3365	No					
GSE2770	No					
GSE1145	No					
GSE1133	No					
GSE473	No					