

Supplementary Material For:

[Letter to the editor]

Unexpected presence of mycoplasma probes on human microarrays

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BioTechniques 47:1013-1016 (December 2009) doi 10.2144/000113271

Keywords: mycoplasma contamination; human cell culture; DNA microarrays; 16S-23S ribosomal RNA; intergenic transcribed spacer

Supplementary Table S1A. Sample descriptions and frequencies in GEO.

Sample description	Number of HG-U133 Plus 2.0 samples stored in GEO	Sample type
Aldosterone-producing adenoma tissue sample	10	Non-cultured
Cell line BT-474	4	Cultured
Cell line MDA-MB-231	4	Cultured
Cervical cancer patient biopsy	33	Non-cultured
Normal adrenal gland tissue sample	19	Non-cultured
293T	8	Cultured
A431	4	Cultured
A549 human lung cancer cell line	12	Cultured
Abdominal fat tissue	6	Non-cultured
Airway epithelial cells	53	Non-cultured
Amniotic fluid	9	Non-cultured
ARPE-19 cell line	9	Cultured
Awells B-lymphoblastoid cell line	6	Cultured
Baboon brain	12	Non-cultured
BEAS-2B bronchial epithelial cells	12	Cultured
BM-CD34+ cells	66	Non-cultured
Human brain sample	233	Non-cultured
Breast tissue	30	Non-cultured
Bronchial smooth muscle cells	6	Cultured
Burkitt's lymphoma cell line	4	Cultured
Colon biopsy	22	Non-cultured
Cultured melanoma cells	1	Cultured
Cultured monocyte derived dendritic cells	64	Cultured
Embryonic stem cell line	8	Cultured
Endometrium	87	Non-cultured
Endometrium	11	Cultured
Endomyocardial biopsy	12	Non-cultured
Gingival tissue	4	Non-cultured
Glioma cell line	6	Cultured
HCC827	4	Cultured
HCT116 cell line	4	Cultured

Supplementary Table S1A (continued). Sample descriptions and frequencies in GEO.

Sample description	Number of HG-U133 Plus 2.0 samples stored in GEO	Sample type
Head and neck squamous cell carcinoma	36	Non-cultured
Heart ventricle biopsy	37	Non-cultured
HEK293 cell line	12	Cultured
HeLa	10	Cultured
HepG2 cell line	34	Cultured
Human abdominal aortic aneurysm biopsy	4	Non-cultured
Human breast tumour tissue biopsy	47	Non-cultured
Human heart (atrial) biopsy	40	Non-cultured
Human lymphatic endothelial cells (primary culture)	6	Cultured
Human multipotent stromal cells cultured	6	Cultured
Human PB-CD34+ cells cultured In vitro	18	Cultured
Human pulmonary artery epithelial cells HPAEC	8	Cultured
Human skeletal muscle biopsy	10	Non-cultured
Human skin biopsy	34	Non-cultured
HUVEC	16	Cultured
IMR32 neuroblastoma cell line	6	Cultured
Jurkat	6	Cultured
KG-1 AML cell line	1	Cultured
LNCaP prostate cells	14	Cultured
Lung cell line	27	Cultured
Lymphatic endothelial cells cultured	4	Cultured
Lymphoblastoid cell line	6	Cultured
Mammary carcinoma	14	Non-cultured
Mammary epithelial cell line	54	Cultured
ME180 cervical carcinoma cells	6	Cultured
Medulloblastoma DAOY cell line	11	Cultured
Melanoma/nevus tissue	17	Non-cultured
Metastatic prostate cancer tissue	19	Non-cultured
MOLT4 cell line	6	Cultured
Muscle biopsy	6	Non-cultured
NB4 cell line	6	Cultured
Normal epidermal keratinocytes	25	Cultured
Normal human lung tissue biopsy	40	Non-cultured
Papillary renal cell carcinoma	34	Non-cultured
Peripheral blood - leukocytes	28	Non-cultured
Placenta	20	Non-cultured
Primary airway epithelial cells	30	Cultured
Primary human astrocytes	21	Cultured
Primary human esophageal epithelial cell culture	6	Cultured
Primary human monocytes	7	Cultured
Primary nerve (Schwann) cell	8	Cultured
Ramos cell line	18	Cultured
RKO colorectal carcinoma cell line	24	Cultured
SCC-6 cells	6	Cultured
SH-SY5Y neuroblastoma cell line	12	Cultured
SKBR3	4	Cultured
Sorted prostate cells	20	Non-cultured
Sperm	21	Non-cultured
Stratagene universal reference RNA	12	Cultured

Supplementary Table S1A (continued). Sample descriptions and frequencies in GEO.

Sample description	Number of HG-U133 Plus 2.0 samples stored in GEO	Sample type
THP-1 cell line	9	Cultured
Thyroid tissue	32	Non-cultured
U937 cell line	1	Cultured
Vulva biopsy	18	Non-cultured
W12 cell line	6	Cultured
White blood cells	99	Non-cultured
Whole peripheral blood	16	Non-cultured
Grand total	1801	

To find out the background frequency of cultured samples in GEO, we examined a set of 1801 randomly selected samples that make up the GEO DataSets. GEO DataSets are reassembled by GEO staff from the original submission information and data into a curated entry; see <http://www.ncbi.nlm.nih.gov/projects/geo/info/faq.html#seriesdataset> for more information on GEO DataSets. Each sample was then grouped by sample description, and then allocated as either 'cultured' or 'non-cultured' based on manual interpretation of the description. The description was taken from either the 'Title' or 'Source Name' field in GEO.

Supplementary Table S1B. Overall proportions of cultured and non-cultured samples

Sample type	Number of samples
Cultured	612 (34%)
Non-cultured	1189 (66%)
Grand total	1801

Overall proportions of cultured and non-cultured samples in GEO, based on information in Table A.

Supplementary Table S2. Samples with high signals for 1570561_at.

Rank	GEO sample ID	Sample description	Sample type	Average RFU
1	GSM143687	Esophageal squamous carcinoma cell line EC109	Cultured	3808
2	GSM143688	Esophageal squamous carcinoma cell line EC109	Cultured	3722
3	GSM136088	Cell line MCF-7_c-myc KD_expt3	Cultured	2809
4	GSM136086	Cell line MCF-7_c-myc KD_expt2	Cultured	2801
5	GSM136084	Cell line MCF-7_c-myc KD_expt1	Cultured	2556
6	GSM136087	Cell line MCF-7_control_expt3	Cultured	2495
7	GSM136085	Cell line MCF-7_control_expt2	Cultured	2406
8	GSM136098	Cell line HeLa_c-myc KD_expt3	Cultured	2383
9	GSM136094	Cell line HeLa_c-myc KD_expt1	Cultured	2343
10	GSM136097	Cell line HeLa_control_expt3	Cultured	2107
11	GSM136093	Cell line HeLa_control_expt1	Cultured	2080
12	GSM136083	Cell line MCF-7_control_expt1	Cultured	2014
13	GSM136095	Cell line HeLa_control_expt2	Cultured	1798
14	GSM136096	Cell line HeLa_c-myc KD_expt2	Cultured	1429
15	GSM75009	Cell culture. A549 treated by MK886, control 1	Cultured	1393
16	GSM60549	CCRF-CEM (ATCC no.: CLL-119) subclone C1	Cultured	1382
17	GSM75010	Cell culture. A549 treated by MK886, control 2	Cultured	1364
18	GSM48672	HEK293 cells	Cultured	1360
19	GSM48671	HEK293 cells	Cultured	1347
20	GSM75023	Cell culture. A549	Cultured	1206
21	GSM75012	Cell culture. A549	Cultured	1147
22	GSM75025	Cell culture. A549	Cultured	1068
23	GSM60548	CCRF-CEM (ATCC no.: CLL-119) subclone C1	Cultured	1032
24	GSM60550	CCRF-CEM (ATCC no.: CLL-119) subclone C1	Cultured	981
25	GSM75011	Cell culture. A549 treated by MK886 1	Cultured	687
26	GSM45797	Awells cell line, 24h autophagy, replicate 1 of 2	Cultured	327
27	GSM102543	Esophagus	Non-cultured	220
28	GSM46967	Colon	Non-cultured	187
29	GSM136092	Cell line MDA-MB-231_c-myc KD_expt2	Cultured	137
30	GSM136090	Cell line MDA-MB-231_c-myc KD_expt1	Cultured	131
31	GSM96271	Human foreskin fibroblast (HFF2) primary cells	Cultured	123
32	GSM96263	Human foreskin fibroblast (HFF2) primary cells	Cultured	121
33	GSM96272	Human foreskin fibroblast (HFF2) primary cells	Cultured	114

Expression levels [mean relative fluorescence units (RFU)] for each of the 2757 HG-U133 Plus 2.0 samples in GEO were calculated and ranked in descending order. Sample descriptions and cultured/non-cultured status are also shown (as in Figure 1). Two of the 33 samples with the highest expression levels of 1570561_at are classified as non-cultured.