PLEASE NOTE: The DCTD Tumor Repository is now accepting new sample request and has resumed normal operations.

DTP, DCTD TUMOR REPOSITORY

A CATALOG OF *IN VITRO* CELL LINES, TRANSPLANTABLE ANIMAL AND HUMAN TUMORS AND YEAST

Operated by Charles River Laboratories, Inc.

under contract to the Biological Testing Branch of the National Cancer Institute at Frederick, MD.

Frederick, Maryland 21702-1201

Sponsored by:

Biological Testing Branch
Developmental Therapeutics Program
Division of Cancer Treatment and Diagnosis
National Cancer Institute
National Institutes of Health

DTP Home Page (http://dtp.cancer.gov)

Updated: 05/05/2020

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Introduction

The Division of Cancer Treatment and Diagnosis (DCTD), National Cancer Institute, has maintained since the early 1960s a low temperature repository of transplantable *in vivo*-derived tumors and *in vitro*-established tumor cell lines from various species. Located at the National Cancer Institute in Frederick, Maryland, the DCTD Tumor Repository serves as a resource for viable, contaminant-free experimental tumor lines, many of which are not obtainable elsewhere. The Repository makes these materials available to qualified investigators as a service to the research community.

The Repository's tumor collection contains a wide variety of frozen types of human and animal origin. Virtually all of the human tumors are xenografts grown in athymic nude mice, although there are some that grow in conditioned rats or in hamster's cheek pouch. Several mouse leukemia lines in the collection are resistant to single drugs of varying modes of action. Multidrug-resistant lines are also available. In addition, the collection includes variant sub-lines of B16 melanomas that exhibit a different degree of metastasis to various organs.

The tumors in this catalog are categorized by species, namely human, hamster, guinea pig, mouse, rabbit and rat. Within animal species, the list is in alphabetical order by tumor designation. Tumors with numeric designations are listed at the end. Human tumors are grouped by tumor type.

We request that the DCTD Tumor Repository, National Cancer Institute at Frederick, Maryland, be cited in publications as the source of tumor materials. We also request that reprints of publications be furnished to the Repository.

Previous Contract Locations of the Tumor Repository include Microbiological Associates, Inc., Bethesda, MD; Arthur D. Little, Inc., Cambridge, MA; and Mason Research Institute, Worcester, MA.

DTP/DCTD/NCI Tumor Repository Request Procedures

Tumor Fragments, Cell Lines and Yeast

The DCTD Tumor Repository is currently updating the Web Site and the request procedures and forms.

To request information and forms on how to place a request please send an email to DCTDTumorRepository@mail.nih.gov

Costs for cell and tumor lines.

Cell or Tumor Lines	NCI/NIH Investigators & Fed. Govt. (MD campuses only)	Academia & Non-Profits both Domestic & International	Commercial Entities both Domestic & International
Per Cryopreserved Vial	N/A	$150.00	$150.00
NCI Anti-Cancer Cell Line Panel	N/A	$8,850.00	$6,900.00

Academia & Non-Profits both Domestic & International

The complete NCI 60 cell line panel now consists of 59 cell lines that are available to Academia and Non-Profits. KM-12 requires a Licensed Agreement with MDA for all requests and will no longer be distributed from NCI. Send request for KM-12 to researchtools@mdanderson.org

Commercial Entities both Domestic & International

Commercial entities may request the 46 non-licensed cell lines. The 14 Licensed cell lines must be requested through a Licensed Agreement from the below contacts.

Commercial entities may receive the 9 NIH Licensed lines listed through an NCI Licensed Agreement: NCI-H23, NCI-H226, NCI-H322M, NCI-H460, NCI-H522, OVCAR-3, OVCAR-4, OVCAR-5, OVCAR-8. Email your request to DCTDTumorRepository@mail.nh.gov

IGR-OV1 must be requested from Daphne DESCARPENTRIES at Daphne.DESCARPENTRIES@gustaveroussy.fr

KM-12, MDA-MB-231, MDA-MB-468, MDA-MB-435 must be requested from MDA at researchtools@mdanderson.org

Costs for yeast lines.

Yeast Strains	NCI/NIH Investigators & Fed. Govt. (MD campuses only)	Academia & Non-Profits both Domestic & International	Commercial Entities both Domestic & International
One Strain	N/A	$150.00	$150.00
Complete Set (16 strains)	N/A	$2,400.00	$2,400.00

Procedures

Submission of Tumors for Cryopreservation

Investigators who have unique and novel experimental tumor lines and would like to submit their tumors to the Repository for cryopreservation and storage should write a letter of intent to the Project Officer. Upon acceptance, the Project Officer will inform the investigator in writing and provide shipping instructions. Tumor tissues or cells (frozen or ambient) are preferred over tumor-bearing animals.

At the Repository, the tumor line(s) will be tested for viral (see list below) and bacterial contamination. When proven "clean," the line(s) will be expanded, *in vivo* or *in vitro* as appropriate, for large batch cryopreservation. Viability and growth of the frozen tumors will be evaluated. The tumors will be included in the Repository's inventory, and upon joint approval of the submitting investigator and the Project Officer, they will be made available for distribution to the scientific community.

The viruses tested for are as follows (MAP test): pneumonia virus of mice (PVM), reo virus-type 3 (Reo 3), Murine encephalitis (GD VII), polyoma (Poly), Sendia virus (SEN), mouse pox extromelia (ECT), lactic dehydrogenase virus (LDH), Hantaan Virus (HAN), minute virus of mice (MVM), Mouse Hepatitis Virus (MHV) and lymphocytic choriomeningitis (LCMV).

Freezing Procedure

Aseptically harvested ascites tumors are diluted in freezing medium at a concentration of 10^6-10^7 cells per ml. One ml of the suspension is pipetted into each 2 ml vial (Nunc cryotube). The vials are screw-capped tightly and labeled with a Repository number. Tissue culture cells are prepared in a similar manner. For solid tumors, the aseptically excised tumor tissue is cut into 2x2x2 mm fragments after freeing it of necrotic materials. The fragments are placed in vials containing 1.5 ml of freezing medium. The freezing medium consists of appropriate tissue culture growth medium plus 10% DMSO and 10% fetal bovine serum.

The processed tumors are frozen initially in a controlled slow-rate freezing apparatus at the rate of 0.5°C per minute to -20°C and 1°C per minute to -80°C. The frozen vials are stored in liquid nitrogen freezers in the Repository.

Receiving Tumor Line Shipments

Cell culture lines and transplantable tumors (distributed as frozen vials of tumor tissues or cell suspension) are shipped in dry ice. Each tumor shipment includes an information sheet showing, among other items, the proper tumor designation, cryopreserved date, *in vivo* host, etc.

Requested tumors are shipped two to three weeks after receipt of all completed paperwork. Shipments leave the Repository no later than Wednesday in order to reach their destinations on weekdays. Before the shipment leaves the Repository, the Recipient is notified by email or fax of the waybill number and carrier. The Recipient (or a representative) must be available to

receive the shipment. An invoice for payment will follow and payment is due upon receipt. When vials are received, they should be cultured right away, expanded and frozen down.

Recommended Thawing Procedure

Frozen tumor cells or tissues received from the Repository should be kept frozen at -70°C or lower until ready for use. For prolonged storage (more than two days), liquid nitrogen freezers are recommended.

CAUTION: We strongly recommend wearing protective glasses or face shields when thawing tissues in glass vials.

The vials in which the cell lines are stored are reliable; however, they are very susceptible to contamination if thawed in a contaminated water bath. The following procedures are recommended:

Remove the ampule from the dry ice container and place it directly into a 37-40°C water bath of freshly drawn water containing an effective concentration of disinfectant and agitate vigorously. Thawing should be rapid (within 40-60 seconds). As soon as thawing is complete, remove the ampule from the water bath and immerse in 70% ethanol at room temperature. All of the operations from this point should be carried out under strict aseptic conditions in a sterile room, cubicle or hood. The concentration of DMSO (cryoprotectant) is not toxic for transplantable tumors and implantation may be made directly from the vial. IMPLANT IMMEDIATELY AFTER THAWING.

For tissue culture samples, the DMSO must be diluted. Transfer the thawed contents (1 ml) to a centrifuge tube and add media to total at least 10 ml. Centrifuge the diluted suspension at approximately 125xg for 10 minutes, discard the supernatant, and re-suspend the cells in an appropriate volume of growth medium without DMSO. All of the cells then can be placed in a T25 or T75 flask with 5-10% FBS and RPMI 1640 with L-glutamine or the recommended cell culture medium, and incubated at the appropriate temperature and carbon dioxide level.

Each cell line must be passaged separately so as not to cross contaminate the lines. Slowly increase the cell split ratios avoiding over-dilution which can impede cell growth. Passage as needed seeking a split ratio which requires being passaged once or twice a week. All of the panel lines should perform well when recommended ratios/densities are used and quality media and serum and fresh L-glutamine are used. For cell lines that have 1:2 or 1:5 split ratios use a T25 flask to start. For cell lines that have 1:80 or 1:160 split ratios use a T75 flask to start.

Procedures

Tumor Transplantation

Transplantable tumor systems are experimental tools for investigators in scientific disciplines other than tumor biology or transplantation immunogenetics. We encourage investigators with limited transplantation experience to contact the Tumor Repository for more detailed information on techniques. The following notes may prove helpful:

a. Tumors have characteristic lag times (the time lapse between tissue implantation and the first palpable growth), which vary from several days to several months with different tumor systems.
b. Tumors also have characteristic rates of growth which markedly influence host survival, and which may vary from weeks to months with different tumor systems.
c. The above two factors are significantly prolonged in the first, and sometimes the second, transplant generation's post-freeze and thaw.
d. Histologically more complex tumors required two or three transplant generations, after thawing, before they return to normal histology and growth characteristics.

Mouse Tumors From The Jackson Laboratory

These tumors formerly were maintained and distributed by the Jackson Laboratory. The list of available tumors can be found in this catalog (refer to the Table of Contents for the page number). They were cryopreserved at EG&G Mason Research Institute and are distributed only as vials of frozen tumor tissue. The required host animals for carrying the JAX tumors in serial transplantation may be obtained from:

Animal Resources
The Jackson Laboratory
600 Main Street, Bar Harbor, ME 04609 USA
T: 800.422.MICE or 207.288.5845 F: 207.288.6150

Human Tumors

Note: Human *in Vitro* Established Cell Lines are in a separate table. Please consult the Table of Contents for page #.

Species: Human

Tumor Type	Tumor Designation	Histologic Type	General Information	Species and/or Strain of Transplantability
BREAST	COO-G	Mammary Carcinoma	Primary explant established *in vivo* in athymic nude mice by Dr. B. Giovanella, Stehlin Foundation	Nude Athymic Mice
BREAST	DU4475 (fragment only)	Mammary Carcinoma	Primary explant from cutaneous tumor nodule in region of mastectomy established *in vitro* by Dr. A. J. Langlois, Duke University Medical Center; then adapted to *in vivo* transplantation by Dr. A. E. Bogden	Nude Athymic Mice
BREAST	ELL-G	Mammary Carcinoma	Primary explant established *in vivo* in athymic nude mice by Dr. B. Giovanella, Stehlin Foundation	Nude Athymic Mice
BREAST	HIG-G	Mammary Carcinoma	Primary explant established *in vivo* in athymic nude mice by Dr. B. Giovanella, Stehlin Foundation	Nude Athymic Mice
BREAST	MCF/7	Mammary Carcinoma	Primary explant from pleural effusate established *in vitro* by Dr. H.D. Soule, Michigan Cancer Foundation; then adapted to *in vivo* transplantation by Dr. A.E. Bogden	Nude Athymic Mice
BREAST	MDA-MB-436	Mammary Carcinoma	Primary explant from pleural effusate established *in vitro* by Dr. Relda Cailleau, M.D. Anderson Hospital and Tumor Institute; then adapted to *in vivo* transplantation by Dr. A.E. Bogden	Nude Athymic Mice
BREAST	MX-1	Mammary Carcinoma	Primary xenotransplant from an infiltrating duct carcinoma (CLO-G). Adapted to *in vivo* trans-plantation by Dr. B. Giovanella	Nude Athymic Mice
BREAST	SW-613	Mammary Carcinoma	Established from *in vitro* line	Nude Athymic Mice

Species: Human

BREAST	VAN-G	Mammary Carcinoma	Primary explant established *in vivo* in athymic nude mice by Dr. B. Giovanella, Stehlin Foundation	Nude Athymic Mice
LUNG	ASPS (fragment only)	Alveolar Soft Part Sarcoma	Obtained from Dr. Robert Shoemaker	
LUNG	ASPS-1	Alveolar Soft Part Sarcoma	Lymph node Metastasis from Dave Vistica	NOD.SCID\NCr or Nude Athymic Mice
LUNG	LX-1 (fragment only)	Lung, undifferentiated carcinoma	Xenotransplant from a metastasis to subcutaneous tissue (DOY-G). The primary lung tumor was an oat cell carcinoma. Adapted to *in vivo* transplantation by Dr. B. Giovanella	Nude Athymic Mice
LUNG	COS-G	Lung, papillary carcinoma	Xenotransplant adapted to *in vivo* transplantation by Dr. B. Giovanella	Nude Athymic Mice
LUNG	H-MESO-1	Lung, mesothelioma	Xenotransplant from a primary tumor received from Dr. R.M. Williams and Dr. A. Rossini. Adapted to *in vivo* transplantation by Dr. A.E. Bogden	Nude Athymic Mice
LUNG	H-MESO-1A	Lung, mesothelioma	H-MESO-1 converted to ascites form by Dr. A.E. Bogden	Nude Athymic Mice
LUNG	NCI-H23 H23	Lung, nonsmall cell, adenocarcinoma	Obtained from Dr. Adi Gazdar	Nude Athymic Mice
LUNG	NCI-H460 H460	Lung, nonsmall cell, epid.	Obtained from Dr. Adi Gazdar	Nude Athymic Mice
COLON	CX-5	Colon, adenocarcinoma	Xenotransplant from an untreated metastasis (SQU-G) adapted to *in vivo* transplantation by Dr. B. Giovanella	Nude Athymic Mice
COLON	GOB-G	Colon, adenocarcinoma	Xenotransplant adapted to *in vivo* transplantation by Dr. B. Giovanella	Nude Athymic Mice
COLON	HCC-2998	Colorectal carcinoma	Obtained from Dr. I.J. Fidler	Nude Athymic Mice
COLON	HCT-15	Colon, carcinoma	Established from *in vitro* line	Nude Athymic Mice
COLON	KLO-G	Colon, adenocarcinoma	Xenotransplant adapted to *in vivo* transplantation by Dr. B. Giovanella	Nude Athymic Mice
COLON	KM20L2	Colon, adenocarcinoma	Obtained from Dr. I.J. Fidler	Nude Athymic Mice

Species: Human

COLON	MRI-H-194	Colon, adenocarcinoma	Xenotransplant from a metastasis adapted to *in vivo* transplantation by Dr. A.E. Bogden	Nude Athymic Mice
COLON	LOVO I	Colon, adenocarcinoma	Established from *in vitro* line	Nude Athymic Mice
COLON	LOVO II	Colon, adenocarcinoma	Established from *in vitro* line	Nude Athymic Mice
COLON	MRI-H-250	Colon, carcinoma	Xenotransplant from a metastasis adapted to *in vivo* transplantation by Dr. A.E. Bogden	Nude Athymic Mice
MELANOMA	NIS-G	Melanosarcoma	Xenotransplant adapted to *in vivo* transplantation by Dr. B. Giovanella	Nude Athymic Mice
MELANOMA	TRI-G	Melanoma	Xenotransplant adapted to *in vivo* transplantation by Dr. B. Giovanella	Nude Athymic Mice
MELANOMA	WIL-G	Melanoma	Xenotransplant adapted to *in vivo* transplantation by Dr. B. Giovanella	Nude Athymic Mice
MELANOMA	MRI-H-121B	Melanoma, malignant	Primary xenotransplant adapted to *in vivo* transplantation by Dr. A.E. Bogden	Nude Athymic Mice
MELANOMA	MRI-H-187	Melanoma, epithelioid melanotic	Xenotransplant from metastasis adapted to *in vivo* transplantation by Dr. A.E. Bogden	Nude Athymic Mice
MELANOMA	MRI-H-221	Melanoma, malignant	Xenotransplant from metastasis adapted to *In vivo* transplantation by Dr. A.E. Bogden	Nude Athymic Mice
MELANOMA	MRI-H-255	Melanoma	Xenotransplant adapted to *in vivo* transplantation by Dr. A.E. Bogden	Nude Athymic Mice
CERVIX	MRI-H-177	Cervix, squamous cell carcinoma	Xenotransplant from a metastasis adapted to *In vivo* transplantation by Dr. A.E. Bogden	Nude Athymic Mice
CERVIX	MRI-H-186	Cervix, invasive, large cell, nonkeratinizing squamous cell carcinoma	Primary xenotransplant adapted to *in vivo* transplantation by Dr. A.E. Bogden	Nude Athymic Mice
CERVIX	MRI-H-196	Cervix, poorly differentiated squamous cell carcinoma	Primary xenotransplant adapted to *in vivo* transplantation by Dr. A.E. Bogden	Nude Athymic Mice

Species: Human

CERVIX	MRI-H-215	Cervix, invasive, large cell, nonkeratinizing, poorly differentiated, epidermoid carcinoma	Primary xenotransplant adapted to *in vivo* transplantation by Dr. A.E. Bogden	Nude Athymic Mice
KIDNEY	MRI-H-121	Kidney, carcinoma	Xenotransplant from a metastasis adapted to *in vivo* transplant by Dr. A.E. Bogden	Nude Athymic Mice
KIDNEY	MRI-H-166	Kidney, transitional cell carcinoma	Primary xenotransplant adapted to *in vivo* transplantation by Dr. A.E. Bogden	Nude Athymic Mice
ENDOMETRIUM	MRI-H-147	Endometrium, carcinoma, Müllerian duct	Primary xenotransplant adapted *in vivo* transplantation by Dr. A.E. Bogden	Nude Athymic Mice
ENDOMETRIUM	MRI-H-220	Endometrium, carcinoma	Primary xenotransplant adapted to *in vivo* transplantation by Dr. A.E. Bogden	Nude Athymic Mice
OVARY	MRI-H-258	Ovarian Adenocar-cinoma	Primary explant established *in vivo* by Dr. A.E. Bogden. Received from Dr. R. Hunter, University of Massachusetts Medical School	Nude Athymic Mice
OVARY	MRI-H-273	Ovarian Carcinoma	Originated from metastasis. Established *in vivo* by Dr. A.E. Bogden. Received from New England Deaconess Hospital	Nude Athymic Mice
OVARY	MRI-H-1834	Ovarian Carcinoma	Primary explant established *in vivo* by Dr. A.E. Bogden. Received from Dr. R. Hunter, University of Massachusetts Medical School	Nude Athymic Mice
OVARY	SWA-G	Ovarian Carcinoma	Xenotransplant adapted to *in vivo* transplantation by Dr. B. Giovanella	Nude Athymic Mice
SARCOMA	HS-1	Sarcoma	No historical information available	Conditioned Rats
SARCOMA	OGL-G	Sarcoma, spindle cell, periosteal osteogenic	Primary xenotransplant adapted to *in vivo* transplantation by Dr. B. Giovanella	Nude Athymic Mice
SARCOMA	DEL-G	Sarcoma	Primary xenotransplant adapted to *in vivo* transplantation by Dr. B. Giovanella	Nude Athymic Mice
EPIDERMOID	DEAC-1	Mucoepidermoid carcinoma	Received as cryopreserved ampules from Dr. S. Warren and Dr. W.B. Patterson	Hamster Cheek Pouch

Species: Human

CNS	SF 295 (fragment)	Glioblastoma	Obtained from Dr. Rosenblum	Nude Athymic Mice
MISC.	CWR-22	Prostate, adenocarcinoma	Received from Dr. T. Pretlow, *in vivo* cultivation requires testosterone supplementation. Not an *in vitro* cell line	Nude Athymic Mice
MISC.	DAU	Burkitt's lymphoma	Received from Dr. T. Griffin, adapted to *in vivo* transplantation by Dr. A.E. Bogden	Nude Athymic Mice

Hamster Tumors

Species: Hamster

Hamster Tumor Table

Tumor Designation	Histologic Type	Form	Strain of Origin/Transplant	Comments
Fibrosarcoma	Fibrosarcoma	Ascites	Not Specified	
H-12	Mesothelioma	Solid	Golden Syrian	
H-75	Mesothelioma	Solid	Golden Syrian	
Islet Cell	Pancreatic Adenocarcinoma	Solid	Golden Syrian	
Lymphosarcoma	Lymphosarcoma	Ascites	Not Specified	
Melanoma	Melanotic Melanoma	Solid	Not Specified	
NCI-CHOdeltafurin	Ovarian	Cell	Not Specified	NIH Licensed
Pan #1 (Fortner)	Pancreatic Duct Adenocarcinoma	Solid	Not Specified	
SB #1 (Fortner)	Small Bowel Adenocarcinoma	Solid	Not Specified	
TG1-4	Mesothelioma	Solid	Golden Syrian	
TS1-4	Epidermoid Carcinoma	Solid	Golden Syrian	
10-24	Mesothelioma	Ascites	Golden Syrian	
2309V	Pancreatic Islet β Cell Adenocarcinoma	Solid	Golden Syrian	
4671	Pancreatic Duct Adenocarcinoma	Solid	Golden Syrian	Line B is insulin-secreting
6973P	Leiomyosarcoma	Solid	Golden Syrian	
8721R	Renal Carcinoma	Solid	Golden Syrian	
9242	Parotic Acinar Cell Adenocarcinoma	Solid	Golden Syrian	
10838	Seminoma	Solid	Golden Syrian	
11348P	Pulmonary Squamous Cell Carcinoma	Solid	Golden Syrian	
11963V	Leiomyosarcoma	Solid	Golden Syrian	
22047	Adenocarcinoma	Solid	Golden Syrian	

Mouse Tumors

Three Addenda have been inserted in this section to facilitate identification or selection of mouse tumors by **histologic type** (Addendum A) and by mouse strain (Addendum B). The third (Addendum C) is a list of other models together with treatment information. A fourth Addendum provides additional treatment information for cell lines received from Southern Research Institute and Arthur D. Little, Inc..

ADDENDUM A: Mouse Tumors Listed by Histological Type*

ADRENAL

AT
LAF_1

ANAPLASTIC CARCINOMA

dbrB (Jax)

COLON

CA07/A
CA51
Colon 26
Colon 38

FIBROSARCOMA

36257 TTT
Hepatoma 129

38290 TTT
Hepatoma 134

46362 TTT

46363 TTT

FB SAR
SaD2 (Jax)

GLIOMA

Glioma 261

HEMANGIOENDOTHELIOMA

36230 TLT
42052 TST
42076 TST
44347 TST

HEPATOMA

H6 (Jax)
Hepatoma 129
Hepatoma 134

HYRIDOMA

4G11

SARCOMA

INGUINAL

Krebs Ascites
Krebs-2

LEUKEMIAS

C58/J Spont.
E Male/Gross
Gross
L1210
L4946
P288
P388
P815
P1534
P1798
RBL-n

LUNG

C4461
CAD2
LC-12
LL-LUC-POL2

LYMPHOMA & LYMPHOSARCOMA

BL12
EL-4 Male
L18464
LSTRA
Mecca
6C3HED

MAMMARY

Adenocarcinoma 755
CE1460 MACA
CH
C3HBA (Jax)
DBA/2 Spont. M114
Ehrlich Ascites
EMT-6
Gross
H2712 (Jax)
Klein
MA13C

MAMMARY (CONT)

MC-n
MCS-1
MXT
Spont. DBA/2

MELANOMA

B16

NERVOUS SYSTEM

C1300 (Jax)
Zimmerman-
Ependymoblastoma
Glioma

OSTEOGENIC

HE10734

PANCREAS

PAN 02

PITUITARY

A+T
BW8685 (Jax)
BW8883 (Jax)
T+T #15
T+T #97

PLASMACYTOMA

ADJ-PC-n
LPC-1
MOPC-n
MPC-n
RPC-n
YPC-1
70429

RETICULUM CELL

Friend Virus Leukemia
M5076
SJL/JW
91632

Lewis
MA387
METH-A
MS-2
S37
S180
Sa-1 (Jax)

Squamous

LC-12

Testicular

M5480

Teratosarcoma

LS402AX

Thymus

Reif-Allen

*Refer to Inventory for details. A designation followed by n, *e.g.*, MOPC-n, indicates that there is a series of tumors with this main designation, *e.g.*, MOPC-4, MOPC-17, MOPC-21, etc.

ADENDUM B: Mouse Tumors Listed By Host Strain*

INBRED HOSTS

A/HE

C4461
Hauschka Ascites
Klein (TA3)

A/J

C1300 (Jax)
H6 (Jax)
Sa 1 (Jax)

AKR

L4946
MA387
Mecca
Reif-Allen

BALB/c

ADJ-PC-n
CA07/A
CA51
Colon 26
EMT-6
LC-12
LPC-1
LSTRA
MC-n
METH-A
Moloney Sarcoma
MOPC-n
MPC-n
MS-1
MS-2
P1798
RPC-n
S37
YPC-1
1247
36257 TTT
38290 TTT
44316 LTST
44347 TST
4G11
46363 TTT

CE

CE1460 MACA

C3H

C3HBA (Jax)
FB SAR
Gross Leukemia
H2712 (Jax)
HE 10734
Hepatoma 129
Hepatoma 134
J30237
Krebs Ascites Carcinoma
Krebs 2 Carcinoma
MA 13C
Mecca
X5563
6C3HED
70429

C57BL/6

Adenocarcinoma 755
B16
BL12
Colon 38
EL-4
E Male Gross
Glioma 261
L18464
Lewis Sarcoma T241
LL-LUC-POL2
LS402AX
M5076
M5480
PAN 02
RBL-n
T+T #15
42052 TST
42076 TST
46362 TTT
916

C57L/J

BW8883 (Jax)

C57BR/cdJ

BW8685 (Jax)

C58

C58J/Spont.

DBA/1

CaD1 (Jax)
dbrB (Jax)
S37 (Jax)
S91 (Jax)
T1703 (Jax)

DBA/2

CAD2
DBA/2 Spont. M114
Friend Virus Leukemia
Gr. Mam. Adenocarcinoma
L1210
P288
P329
P388
P815
P1534
S180
SaD2 (Jax)
Spont. DBA/2 Mammary
T1699 (Jax)

SJL/J

SJL/JW

129

LS402AX

F1 Hybrids and Non-Inbred Hosts

Swiss

Ehrlich Ascites
S180

BDF_1

MXT
Various resistant lines of L1210 and P388

LAF_1

AT
LAF_1
MST
T+T #97

CAF_1

Lymphoma-2

CDF_1

R-n
Various resistant lines of L1210 and P388

*Refer to Inventory for details. A designation followed by n, *e.g.*, MOPC-n, indicates that there is a series of tumors with this main designation, *e.g.*, MOPC-4, MOPC-17, MOPC-21, etc.

ADDENDUM C: Other Murine Models

L1210 Lymphoid Leukemia

L1210/TSC (NSC-729)
L1210/MTX (NSC-740)
L1210/6MP (NSC 755)
L1210/L-PAM (NSC-8806)
L1210/NSC-19622
L1210/5FU (NSC-19893)
L1210/CTX (NSC-26271)
L1210/DF8 (NSC-29630)
L1210/HU (NSC-32065)
L1210/MeGAG (NSC-32946)
L1210/NSC-38280
L1210/DTIC (NSC-45388)
L1210/TIC (NSC-60339)
L1210/Ara-C (NSC-63878)
L1210/cis-DDP (NSC-119875)
L1210/Anhydro Ara C (NSC-145668)
L1210/Ftorafur (NSC-148958)
L1210/L-Alanosine (NSC-153353)
Note: Reo3+
L1210/BCNU (NSC-409962)
L1210/C95 (NSC-740, 755, 26271)
L1210/FR3 DCM/R 100a
L1210/FR8/DCM
L1210/RT8 (Folate Reductase)
L1210/M-773

*Treatment information, where available, is given in the following pages. When resistant lines are shipped, treatment information, if any, is included.

P388 Lymphocytic Leukemia

P388/MTX (NSC-740)
P388/Actinomycin D (NSC-3053)
P388/DON (NSC-7365)
P388/L-PAM (NSC-8806)
P388/5-FU (NSC-19893)
P388/Ara C (NSC-63878)
P388/Daunomycin (NSC-82151)
P388/5-Azacytidine (NSC-102816)
P388/DDP (NSC-119875) Note: Reo3*
P388/ADR (NSC-123127)
P388/L-Alanosine (NSC-153353)
P388/Acivicin (NSC-163501)
P388/Anthracenedione (NSC-287513)
Note: Reo3*
P388/Mitoxantrone (NSC-299195 + 301739)
P388/Ara-A + 2'dcF (NSC-404241 + 218321)
P388/BCNU (NSC-409962)

Other Resistant Leukemias

P288/MTX (NSC-740)
P815/VLB (NSC-49842)

Lewis Lung Carcinoma Only in Mice

LLC-Luc-GFP (LL-LUC-POL2)

ADDENDUM D: Drug-Resistant Murine Leukemias-

Tumor Line	Host of Origin, Resistant Ln	Passage Inoculum	Treatment Used w/ Serial Passage				Optimal Treatments to Check Degree of Resistance			
			NSC#	mg/Kg	Rt	Schedule	NSC#	mg/Kg	Rt	Schedule
L1210/TSC (NSC-729)	DBA/2 or CDF1	10^5	729	5.0	i.p.	Days 1-6	729	6.0	i.p.	Q3H x 8 Days 1,5, 9
L1210/6-MP (NSC-755)	DBA/2	10^5	N/A	N/A	N/A	N/A	755	50.0	i.p.	QD x 9
L1210/L-PAM (NSC-8806)	BDF1	10^5	8806	7.5	i.p.	Day 2 only	8806	15.0	i.p.	Day 1 only
L1210/CPA (L1210/CTX) (NSC-26271	DBA/2	10^5	N/A	N/A	N/A	N/A	26271	265.0	i.p.	Day 1 only
L1210/HU (NSC-32065)	DBA/2 or CDF1	10^5	32065	130.0	i.p.	Days 1-6	32065	60.0	i.p.	Q3Hx8 Days 1, 5, 9
L1210/ARA-C (NSC-63878)	DBA/2 or hybrid	10^5	N/A	N/A	N/A	N/A	135962	125.0	i.p.	Day 1 only
L1210/DDP (NSC-119875)	DBA/2 or CDF1	10^5	119875	5.0	i.p.	Day 4 only	119875	8.0	i.p.	Day 1 only
L1210/BCNU (NSC-409962)	BDF1	10^5	N/A	N/A	N/A	N/A	409962	30.0	i.p.	Day 1 only
P388/MTX (NSC-740)	DBA/2 or CDF1	10^7	740	0.75	s.c.	Days 1-6	740	2.0	i.p.	QD1 9 days
P388/ACT-D (NSC-3053	DBA/2 or CDF1	10^7	3053	0.2	i.p.	Day 4 only	3053	0.5	i.p.	Day 1 only
P388/L-PAM (NSC-8806)	BDF1	10^6	8806	7.5	i.p.	Day 2 only	8806	15.0	i.p.	Day 1 only
P388/5-FU (NSC-19893)	BDF1	10^7	19893	20.0	s.c.	Days 1-6	19893	25.0	i.p.	QD1 9 days
P388/AZACYT (NSC-102816)	DBA/2 or CDF1	10^7	102816	40.0	i.p.	Day 4 only	102816	3.5	i.p.	QD1 9 days
P388/ADR (NSC-123127)	BDF1	10^7	123127	6.0	i.p.	Day 2 only	123127	12.5	i.p.	Day 1 only

Tumor Line	Host of Origin, Resistant Ln	Passage Inoculum	Treatment Used w/ Serial Passage				Optimal Treatments to Check Degree of Resistance			
			NSC#	mg/Kg	Rt	Schedule	NSC#	mg/Kg	Rt	Schedule
P388/ARA-A + 2'dcF (NSC-404241+ NSC-218321	BDF1	10^5	414241 + 218321	125.0 0.02	i.p.	Days 2-4	404241 + 218321	60.0 0.05	i.p.	Q3Hx8 Days 1, 5, 9
P388/ARA-A + 2'dcF (NSC-404241+ NSC-218321	BDF1	10^5	414241 + 218321	125.0 0.02	i.p.	Days 2-4	404241 + 218321	150.0 0.25	i.p.	QD1 9 days
P388/BCNU (NSC-409962)	CDF1	10^7	409962	25.0	i.p.	Day 2 only	409962	30.0	i.p.	Day 1 only

+NSC-218321 was administered thirty minutes before NSC-404241 each time.

Treatment information for lines received from Southern Research Institute and Arthur D. Little, Inc.

Species: Mouse

Tumor Designation	Histologic Type	Form	Strain of Origin/Transplant	Comments
1247	Mammary Adenocarcinoma	Solid	BALB/c	
36230 TLT	Hemangioendothelioma	Solid	C57BL/6J	
36257 TTT	Fibrosarcoma	Solid	BALB/cAnN	
38290 TTT	Fibrosarcoma	Solid	BALB/cAnN	
42052 TST	Hemangioendothelioma	Solid	C57BL/6J	
42076 TST	Hemangioendothelioma	Solid	C57BL/6J	
44316 LTST	Hemangioendothelioma	Solid	BALB/cAnN	
44347 TST	Hemangioendothelioma	Solid	BALB/cAnN	
46362 TTT	Fibrosarcoma	Solid	C57BL/6J	
46363 TTT	Fibrosarcoma	Solid	BALB/cAnN	
4G11	Hybridoma	Brei	BALB/cAnN	RPMI/10% FCS, Nissely
6C3HED (Gardner)	Lymphosarcoma	Ascites	C3H	Several lines. See Jax tumors
6C3HED/AR Res.	Lymphosarcoma	Spleen Homogenate	C3H	
70429	Plasmacytoma	Ascites	C3H	
70429/Azaserine (NSC-3425)	Plasmacytoma	Ascites	C3HF/LW	
91632	Reticulum Cell Sarcoma	Solid	C57BL/Kaplan	
Adenocarcinoma 755 (CA755, Bagg-Jackson, Adenocarcinoma)	Mammary Adenocarcinoma	Solid, Ascites or Brei	C57BL	
Adenocarcinoma 755	Mammary Adenocarcinoma	Solid	SCID	
ADJ-PC-6	Plasmacytoma	Solid or Ascites	BALB/c	
ASPS	Alveolar Soft Part Sarcoma	Solid	NOD.SCID	
AT (Clone Y_1)	Adrenal	Solid	LAF_1	
AtT/20	Anterior Pituitary	Solid	LAF_1	
B16	Melanoma	Solid	C57BL/6	See Jax tumors
B 12 Sensitive	Lymphosarcoma	Solid	C57BL/Ka	
BL 12/HcRa	Lymphosarcoma	Solid	C57BL/Ka	Resistant to cortisone
BW8685	Pituitary	Solid	C57BR/Cdj	See Jax tumors
BW8883	Pituitary	Solid	C57L/J	See Jax tumors
C3HBA	Mammary Adenocarcinoma	Solid	C3H/An	See Jax tumors
C4461	Lung Adenocarcinoma	Solid	A/He	

Species: Mouse

Tumor Designation	Histologic Type	Form	Strain of Origin/Transplant	Comments
C58/J Spontaneous	Leukemia	Spleen Brei	C58	
CA07/A	Colon Adenocarcinoma	Solid	BALB/c	
CA51	Colon Adenocarcinoma	Solid	BALB/c	
CaD1	Mammary Adenocarcinoma	Solid	DBA/1J	See Jax tumors
CaD2	Mammary Adenocarcinoma	Solid	DBA/2	
CCO/1923	Hemangiosarcoma	Solid	B6C3F1	
CE1460 MACA	Mammary Adenocarcinoma	Solid	CE	
CH	Mammary Adenocarcinoma	Solid	Nude C3H	
Colon 26	Carcinoma	Solid	BALB/c	
Colon 38	Carcinoma	Brei	C57BL/6	
DBA/2 Spontaneous Tumor M114	Mammary Adenocarcinoma	Solid	DBA/2	
dbrB	Anaplastic Carcinoma	Solid	DBA/1J	See Jax tumors
Ehrlich Ascites	Mammary Adenocarcinoma	Solid or Ascites	Various	Several lines
Ehrlich Ascites/6-TG (NSC-752)	Mammary Adenocarcinoma	Ascites	Swiss	Resistant to 6-Thioguanine
Ehrlich Ascites, Tetraploid	Mammary Adenocarcinoma	Ascites	Swiss	
EL-4 Male	Lymphoma	Solid, Spleen Fragments & Ascites	C57BL/6	
E Male Gross	Leukemia	Spleen Homogenate	C57BL/6	Available to NCI-Frederick only
EMT-6	Mammary Adenocarcinoma	Solid	BALB/c	
FB SAR (A)	Fibrosarcoma	Solid	C3H	
FB SAR (B)	Fibrosarcoma	Solid	C3H	
Friend Virus Leukemia	Reticulum Cell Sarcoma	Solid or Spleen Homogenate	DBA/2	
Furth Tumor				See Carcinoma 1025
Glioma 261	Glioma	Solid	C57BL/6	
Gross Leukemia	Leukemia	Solid	C3H	
Gross Mammary Adenocarcinoma	Mammary Adenocarcinoma	Solid	DBA/2	
Hageman Mastocytoma				See P815

Species: Mouse

Tumor Designation	Histologic Type	Form	Strain of Origin/Transplant	Comments
Hauschka Ascites	Unknown	Ascites	A/He	
H2712	Mammary Adenocarcinoma	Solid	C3H/HeJ	See Jax tumors
H6	Hepatoma	Solid	A/J	See Jax tumors
HE 10734	Osteogenic Sarcoma	Solid	C3H	
HE 10734/FR	Osteogenic Sarcoma	Solid	C3H	
Hepatoma 129 (HE 129)	Hepatoma	Solid	C3H or Hybrid	
Hepatoma 134 (HE 134, Shear Hepatoma 134)	Hepatoma	Ascites	C3H	
J-30237	Unknown	Ascites	C3H	
Klein Tumor (TA3)	Mammary Adenocarcinoma	Ascites	A/He or CAF_1	Several lines
Krebs Ascites Carcinoma	Carcinoma of Inguinal Region	Ascites	C3H or CDBA	
Krebs 2 Carcinoma	Carcinoma of Inguinal Region	Ascites	C3H	
L1210	Lymphoid Leukemia	Ascites or Spleen Homogenate	DBA/2 or CDBA	
L1210/TSC (NSC-729)	Lymphoid Leukemia	Ascites	DBA/2	Resistant to Thiosemicarbazone
L1210/MTX (NSC-740)	Lymphoid Leukemia	Ascites or Speen Homogenate	DBA/2 or CDBA	Treated
L1210/6MP (NSC-755)	Lymphoid Leukemia	Ascites	DBA or Hybrid	Several lines
L1210/L-PAM (NSC-8806)	Lymphoid Leukemia	Ascites	DBA/2 or BDF_1	Treated
L1210/NSC-19622	Lymphoid Leukemia	Ascites	DBA/2	
L1210/5FU (NSC-19893)	Lymphoid Leukemia	Ascites	BDF_1	
L1210/CTX (NSC-26271) (L1210/CPA)	Lymphoid Leukemia	Ascites or Spleen Homogenate	DBA/2 or CDBA	
L1210/DF8 (NSC-29630)	Lymphoid Leukemia	Ascites or Spleen Homogenate	DBA/2 or CDBA	
L1210/HU (NSC-32946	Lymphoid Leukemia	Ascites	DBA/2	
L1210/MeGAG (NSC-32946)	Lymphoid Leukemia	Ascites or Spleen Homogenate	CDF_1	
L1210/NSC-38280	Lymphoid Leukemia	Ascites	CDF_1	
L1210/DTIC (NSC-45388)	Lymphoid Leukemia	Ascites or Solid	DBA/2 or CDBA	Untreated and treated lines

Species: Mouse

Tumor Designation	Histologic Type	Form	Strain of Origin/Transplant	Comments
L1210/TIC (NSC-60339)	Lymphoid Leukemia	Spleen Homogenate	CDBA	Untreated and treated lines
L1210/Ara-C (NSC-63878)	Lymphoid Leukemia	Ascites or Spleen Homogenate	DBA/2 or Hybrid	Untreated and treated lines
L1210/cis-DDP (NSC-119875	Lymphoid Leukemia	Ascites	DBA/2	Treated
L1210/Anhydro-Ara C	Lymphoid Leukemia	Ascites	DBA/2 or Hybrid	Untreated and treated lines
L1210/Ftorafur (NSC-148958)	Lymphoid Leukemia	Ascites	DBA/2 or BDF_1	Untreated and treated lines
L1210/BCNU (NSC-409962)	Lymphoid Leukemia	Ascites	DBA/2 or Hybrid	Untreated and treated lines
L1210/C95/RES	Lymphoid Leukemia	Ascites or Spleen Brei	CDBA	CTX, MTX, MP resistant
L1210/FR3 DCM/R 100a	Lymphoid Leukemia	Spleen Brei	CDBA	
L1210/FR8/DCM	Lymphoid Leukemia	Spleen Brei	CDF_1	
L1210/FR8 (Folate Reductase)	Lymphoid Leukemia	Spleen Brei	CDF_1	
L1210/M-733	Lymphoid Leukemia	Ascites	DBA/2	Treated
L1210 Variants				See PR_1C_1T5/NSC-45388, PR_1SE_1T5 and PR_1SE_1T5/NSC-45388
L18464	Lymphoma	Solid	C57BL/6	
L4946	Lymphocytic Leukemia	Solid	AKR	
LAF_1	Adrenal Cortical Adenocarcinoma	Solid	LAF_1/J	
LC-12	Pulmonary Squamous Cell Carcinoma	Solid	BALB/c	
LL-LUC-POL2 (LLC-LUC-GFP)	Lung Squamous Cell Carcinoma	Solid	C57BL/6	Grown in mice only, never in tissue culture. Genetically modified to express luciferase.
Lewis Lung/PALA (NSC-224131)	Carcinoma	Solid	C57BL/6	
Lewis Sarcoma T241	Pleiomorphic Cell Sarcoma	Solid	C57BL	
LPC-1	Plasmacytoma	Solid or Ascites	BALB/c	

Species: Mouse

Tumor Designation	Histologic Type	Form	Strain of Origin/Transplant	Comments
LS402AX	Teratosarcoma	Solid	C57BL/6 and 129	
LSTRA	Lymphosarcoma	Ascites	BALB/c	Several lines
LSTRA/DTIC (NSC-45388)	Lymphosarcoma	Ascites	BALB/c	Untreated and treated lines
M5076	Reticulum Cell Sarcoma	Solid or Ascites	C57BL/6	
M5076/L-PAM (NSC-8806)	Reticulum Cell Sarcoma	Solid	C57BL/6	Treated
M5076/HMM (NSC-13875)	Reticulum Cell Sarcoma	Solid	C57BL/6	Treated
M5076/cis-DDP (NSC-119875)	Reticulum Cell Sarcoma	Solid	C57BL/6	Treated
M5480	Testicular Carcinoma (Seminoma)	Solid	C57BL/6	
MA13C	Mammary Adenocarcinoma	Solid	C3H	
MA387	Fusiform Cell Carcinoma	Solid	AKR	
MC-11	Mammary Adenocarcinoma	Spleen Homogenate	BALB/c	
MC-5	Mammary Adenocarcinoma	Spleen	BALB/c	
MC-6 Female	Mammary Adenocarcinoma	Ascites	BALB/c	
MCS-1	Mammary Adenocarcinoma	Solid or Spleen Homogenate	BALB/c	
Mecca (ME61, MLS)	Lymphosarcoma	Solid or Ascites	C2H or AKR	
METH-A	Sarcoma	Ascites	BALB/c	
MLS				See Mecca
Moloney Sarcoma (SV-122-TR4)	Sarcoma	Solid	BALB/c	
MOPC-104	Plasmacytoma	Solid	BALB/c	
MOPC-112	Plasmacytoma	Solid	BALB/c	
MOPC-113	Plasmacytoma	Solid	BALB/c	
MOPC-114	Plasmacytoma	Solid	BALB/c	
MOPC-116	Plasmacytoma	Solid	BALB/c	
MOPC-118	Plasmacytoma	Solid	BALB/c	
MOPC-121	Plasmacytoma	Solid	BALB/c	
MOPC-123	Plasmacytoma	Solid	BALB/c	
MOPC-129	Plasmacytoma	Solid	BALB/c	
MOPC-132	Plasmacytoma	Solid	BALB/c	

Species: Mouse

Tumor Designation	Histologic Type	Form	Strain of Origin/Transplant	Comments
MOPC-140	Plasmacytoma	Solid	BALB/c	
MOPC-141	Plasmacytoma	Solid	BALB/c	
MOPC-157	Plasmacytoma	Solid	BALB/c	
MOPC-17	Plasmacytoma	Solid	BALB/c	
MOPC-172	Plasmacytoma	Solid	BALB/c	
MOPC-173	Plasmacytoma	Solid	BALB/c	
MOPC-209	Plasmacytoma	Solid	BALB/c	
MOPC-21	Plasmacytoma	Solid or Ascites	BALB/c	
MOPC-28	Plasmacytoma	Solid	BALB/c	
MOPC-30	Plasmacytoma	Solid	BALB/c	
MOPC-31	Plasmacytoma	Solid	BALB/c	
MOPC-4	Plasmacytoma	Solid or Ascites	BALB/c	
MOPC-41	Plasmacytoma	Solid	BALB/c	
MOPC-46	Plasmacytoma	Solid	BALB/c	
MOPC-47	Plasmacytoma	Solid	BALB/c	
MOPC-48	Plasmacytoma	Solid	BALB/c	
MOPC-49	Plasmacytoma	Solid	BALB/c	
MOPC-51	Plasmacytoma	Solid	BALB/c	
MOPC-61	Plasmacytoma	Solid	BALB/c	
MOPC-63	Plasmacytoma	Solid	BALB/c	
MOPC-67	Plasmacytoma	Solid	BALB/c	
MOPC-69	Plasmacytoma	Solid	BALB/c	
MOPC-70	Plasmacytoma	Solid	BALB/c	
MOPC-78	Plasmacytoma	Solid	BALB/c	
MOPC-88	Plasmacytoma	Solid	BALB/c	
MOPC-91	Plasmacytoma	Spleen Homogenate	BALB/c	
MOPC-96	Plasmacytoma	Solid	BALB/c	
MOPC-99	Plasmacytoma	Solid	BALB/c	
MPC-1	Plasmacytoma	Solid or Ascites	BALB/c	
MPC-15	Plasmacytoma	Solid	BALB/c	
MPC-2	Plasmacytoma	Solid or Ascites	BALB/c	
MPC-25	Plasmacytoma	Solid	BALB/c	

Species: Mouse

Tumor Designation	Histologic Type	Form	Strain of Origin/Transplant	Comments
MPC-26	Plasmacytoma	Solid	BALB/c	
MPC-31	Plasmacytoma	Solid	BALB/c	
MPC-36	Plasmacytoma	Solid	BALB/c	
MPC-37	Plasmacytoma	Solid	BALB/c	
MPC-40	Plasmacytoma	Solid	BALB/c	
MPC-42	Plasmacytoma	Solid	BALB/c	
MPC-44	Plasmacytoma	Solid or Ascites	BALB/c	
MPC-48	Plasmacytoma	Solid	BALB/c	
MPC-49	Plasmacytoma	Solid	BALB/c	
MPC-59	Plasmacytoma	Solid	BALB/c	
MPC-60	Plasmacytoma	Solid	BALB/c	
MPC-63	Plasmacytoma	Solid	BALB/c	
MPC-64	Plasmacytoma	Solid	BALB/c	
MPC-67	Plasmacytoma	Solid	BALB/c	
MPC-73	Plasmacytoma	Solid	BALB/c	
MPC-H	Plasmacytoma	Solid	BALB/c	
MST	Mast Cell	Solid	LAF_1	
MS-2	Sarcoma	Solid	BALB/c	
MXT	Mammary Ductal Papillary Carcinoma	Solid	BDF_1	Estrogen Responsive
P288	Lymphocytic Leukemia	Solid or Ascites	DBA/2 or CDBA	
P288/MTX (NSC-740)	Lymphocytic Leukemia	Ascites	DBA/2 or BDF_1	
P388	Lymphocytic Leukemia	Ascites	DBA/2 or CDBA	
P388/MTX (NSC-740)	Lymphocytic Leukemia	Ascites	DBA/2	Treated
P388/Actinomycin D (NSC-3053)	Lymphocytic Leukemia	Ascites	DBA/2	
P388/DON (NSC-7365)	Lymphocytic Leukemia	Ascites	DBA/2	Treated
P388/L-PAM (NSC-8806)	Lymphocytic Leukemia	Ascites	BDF_1	Treated
P388/5FU (NSC-19893	Lymphocytic Leukemia	Ascites	BDF_1	Treated
P388/Ara-C (NSC-63878)	Lymphocytic Leukemia	Ascites	BDF_1	
P388/Daunomycin (NSC-82151)	Lymphocytic Leukemia	Ascites	DBA/2	

Species: Mouse

Tumor Designation	Histologic Type	Form	Strain of Origin/Transplant	Comments
P388/5-Azacytidine (NSC-102816)	Lymphocytic Leukemia	Ascites	DBA/2	Treated
P388/ADR (NSC-123127)	Lymphocytic Leukemia	Ascites	BDF_1	Treated
P388/L-Alanosine (NSC-153353)	Lymphocytic Leukemia	Ascites	DBA/2	
P388/Acivicin (NSC-163501)	Lymphocytic Leukemia	Ascites	DBA/2	
P388/Mitoxantrone (NSC-301739)	Lymphocytic Leukemia	Ascites	DBA/2	
P388/Ara-A +2'dcF (NSC-404241 + NSC-218321)	Lymphocytic Leukemia	Ascites	BDF_1	Treated
P388/BCNU (NSC-409962)	Lymphocytic Leukemia	Ascites	BDF_1	Treated
P815 (Hageman Mastocytoma)	Mast Cell Leukemia	Ascites	DBA/2 or Hybrid	
P815/VLB (NSC-49842)	Mast Cell Leukemia	Ascites	DBA/2 or BDF_1	
P1534	Lymphocytic Leukemia	Spleen Homogenate or Ascites	DBA/2	Several lines
P1798	Lymphosarcoma	Solid or Ascites	BALB/c	
P1798/CR-JS	Lymphoma	Solid	BALB/c	Glucocorticoid resistant, treated
P1798/CS-JS	Lymphoma	Solid	BALB/c	Glucocorticoid sensitive
PAN 02	Pancreas	Solid	C57BL/6	
PR_1C_1T5/NSC-45388	Lymphoid Leukemia	Ascites	CDF_1	L1210 variant; treated
PR_1SE_1T5	Lymphoid Leukemia	Ascites	CDF_1	L1210 variant
PR_1SE_1T5/NSC-45388	Lymphoid Leukemia	Ascites Homogenate	CDF_1	L1210 variant; treated
R-26	Unknown	Ascites	CDF_1	
R-46	Unknown	Ascites	CDF_1	
R-53	Unknown	Ascites	CDF_1	
R-74	Unknown	Ascites	CDF_1	

Species: Mouse

Tumor Designation	Histologic Type	Form	Strain of Origin/Transplant	Comments
RBL-5 (Rauscher Virus Induced Transplantable Tumor-5)	Leukemia	Ascites	C57BL/6	
Reif-Allen Tumor	Thymoma	Ascites	AKR	
RPC-20	Plasmacytoma	Solid or Ascites	BALB/c	
RPC-5	Plasmacytoma	Solid	BALB/c	
RPC-9	Plasmacytoma	Solid or Ascites	BALB/c	
S180 (Crocker, S III)	Pleomorphic Cell Sarcoma	Solid or Ascites	BALB/c, Swiss or hybrids	See Jax tumors
S37	Pleomorphic Cell Sarcoma	Ascites	BALB/c, Nonspecific	See Jax tumors
Sa 1	Spindle Cell Sarcoma	Solid	A/J	See Jax tumors
Sa D2	Fibrosarcoma	Solid	DBA/2J	See Jax tumors
Shear Hepatoma 134				See Hepatoma 134
SJL/JW	Reticulum Cell Sarcoma	Spleen Homogenate	SJL/JW	
Spontaneous Adrenal	Adrenal	Solid	CE/J	
Spontaneous DBA/2 Mammary	Mammary Adenocarcinoma	Solid	DBA/2	
Spontaneous Mammary	Mammary Adenocarcinoma	Solid	DBA/2	
SV-122-TR4				See Moloney Sarcoma
T1699	Mammary Adenocarcinoma	Solid	DBA/2J	See Jax tumors
T1703	Mammary Adenocarcinoma	Solid	DBA/1J	See Jax tumors
X5563	Unknown	Solid	C3H/He	
YPC-1	Plasmacytoma	Ascites	BALB/c	
Zimmerman Ependymoblastoma				See Ependymoblatoma

Mouse Tumors From the Jackson Laboratory

*Length of lag phase before measurable tumor growth (5 mm average diameter) is evident in the first passage post thaw.

+MAP Test – Murine Antigen Profile for 12 common viruses: PVH, Rco 3, Sendal, GDVII, K, Polyoma, MVH, MAB, MHV, LCM, Ectromelia, LDH. Only positive results are listed.

Adapted from Jax Notes, No. 424, December 1975.

Species: Mouse

Mouse Tumors From Jackson Laboratory Cryopreserved in the DCTD Tumor Repository

Tumor Designation	Tumor Type	Host	Transplantation Freq. (Days)	Host Surv(D)	LagTime (D)*	Strain of Origin	Sex of Origin	MRI Bank #	MAP Test+
6C3HED (GL-1)	Anaplastic Carcinoma	DBA/1J	7	7-9	5-7	DBA	--	J-730	LDH+
B16	Melanoma (Amelanotic)	C57BL/6J	10	24-44	15-21	C57BL/6J	--	J-753	LDH+
BW8685	Pituitary	C57BR/dcJ	90-120	210-238	395	C57BR/cdj		J-794	LDH+
BW8883	Pituitary	C57L/J	60	182-273	65-73	C57L/J	--	J-756	LDH+
C1300	Round Cell (Neuroblastoma?)	A/J	10	19-32	14-21	A albino	--	J-734	LDH+ MHV+
C3HBA	Mammary Adenocarcinoma	C3H/HeJ	10	39-77	11-16	C3H/An		H-758	LDH+
CaD1	Mammary Adenocarcinoma	DBA/1J	10	25-43	9-17	DBA.1H		H-742	LDH+
dbrB	Anaplastic Carcinoma	DBA/1J	7	7-9	5-7	DBA		J-730	LDH+
H2712	Mammary Adenocarcinoma	C3H/HeJ	7	14-27	11-19	C3H/HeHu		J-731	LDH+
H6	Hepatoma	A/J	10-14	14-44	7-9	A/J		J-750	LDH+
S180	Pleomorphic Sarcoma	BALB/cJ	10	21-31	9-11	“white” mouse		J-757	LDH+
S37	Pleomorphic Sarcoma	DBA/1J	7	21-28	6-13	“stock” mouse		J-759	LDH+
S91	Melanoma (Melanotic)	DBA/1J	17-21	49-98	16-18	DBA (Snell)	--	J-749	LDH+
SaD2	Fibrosarcoma	DBA/2J	10	19-21	8-15	DBA/2J		J-765	LDH+
Sal	Spindle-cell Sarcoma	A/J	7	9-15	7-9	A albino	--	J-733	LDH+
T1699	Mammary Adenocarcinoma	DBA/2J	10	19-39	8-10	DBA/2J		J-736	LDH+
T1703	Mammary Adenocarcinoma	DBA/1J	10	47-74	9-12	DBA/1Hu		J-737	LDH+

Rabbit Tumors

Species: Rabbit

Tumor Designation	Histologic Type	Form	Strain of Origin/Transplant	Comments
Brown-Pearce	Carcinoma (Epithelioma)	Solid	New Zealand White or Dutch	

Rat Tumors

Species: Rat

Tumor Designation	Histologic Type	Form	Strain of Origin/Transplant	Comments
11095	Prostate	Solid	Fischer 344	
16 Morris	Hepatoma	Solid	Buffalo	
20 Morris	Hepatoma	Solid	Buffalo	
23 Methapyrilene	Hepatocellular Carcinoma	Solid	Fischer 344	
2982	Olfactory Carcinoma	Solid	Fischer 344	
29 Methapyrilene	Hepatocellular Carcinoma	Solid	Fischer 344	
33 Methapyrilene	Hepatocellular Carcinoma	Solid	Fischer 344	
3M2N	Mammary Squamous Cell Carcinoma	Solid	Fischer 344	
44 Morris	Hepatoma	Solid	Buffalo	
5123 Morris	Hepatoma	Solid	Buffalo	
68-2	Alveolar/Bronchiolar Carcinoma	Solid	Fischer 344	
7777 Morris	Hepatoma	Solid	Buffalo	
7800 Morris	Hepatoma	Solid	Buffalo	
8999 Morris	Hepatoma	Solid	Buffalo	
9618A Morris	Hepatoma	Solid	Buffalo	
A1011	Unknown	Solid	Fischer 344	
A1131-AR	Unknown	Solid	Fischer 344	
A1138-AL	Unknown	Solid	Fischer 344	
A1140-CL-10	Unknown	Solid	Fischer 344	
A546 (DMBZ Attenuated)	Unknown	Solid	Fischer 344	
A920 (Tetramin Attenuated Resistant)	Unknown	Solid	Fischer 344	
AA Ascites	Spontaneous Ascites	Ascites	Wistar	
ATC 64	Thyroid Carcinoma	Solid	Fischer 344	
BT/M520	Fibrosarcoma	Solid	Marshall 520	
CCO 1865	Mesothelioma	Solid	Fischer 344	
CSE	Fibrosarcoma	Solid	Fischer 344	H-1
DMBA1	Mammary Adenocarcinoma	Solid	Fischer 344	Several Lines
Dunning Leukemia	Atypical Monocytic Leukemia	Solid or Ascites		
Dunning Leukemia/ NSC-755 (6-MP)	Atypical Monocytic Leukemia	Solid	Fischer 344	

Species: Rat

Tumor Designation	Histologic Type	Form	Strain of Origin/Transplant	Comments
Dunning Leukemia/ NSC-3088 (chlorambucil)	Atypical Monocytic Leukemia	Solid	Fischer 344	
Dunning Leukemia/ NSC-10107 (nitromin)	Atypical Monocytic Leukemia	Solid	Fischer 344	
Dunning Leukemia/ NSC-13875 (HMM)	Atypical Monocytic Leukemia	Solid	Fischer 344	
Dunning Leukemia/ NSC-17261 (benzoquinone)	Atypical Monocytic Leukemia	Solid	Fischer 344	
Dunning Leukemia/ NSC-23892 (dimethylbenzimidazole)	Atypical Monocytic Leukemia	Solid	Fischer 344	
Dunning Leukemia/ NSC-26980 (mitomycin C)	Atypical Monocytic Leukemia	Solid	Fischer 344	
Dunning Leukemia/ NSC-29422 (thioguanosine)	Atypical Monocytic Leukemia	Solid	Fischer 344	
Dunning Leukemia/ NSC-45059 (o-acetyltetramin)	Atypical Monocytic Leukemia	Solid	Fischer 344	
Dunning Leukemia/ NSC-51845 (cyclohexylamine)	Atypical Monocytic Leukemia	Solid	Fischer 344	
Flexner-Jobling	Seminal Vesicle Adenocarcinoma	Solid	Fischer 344	
Fran Tumor	Ovarian Carcinoma	Ascites	Sprague-Dawley	
GBT/W	Glial Tumor	Solid	Wistar	
HB Lynch-Fibroma 522	Fibroma	Solid	Fischer 344	
Hepatoma NK				See Novikoff Hepatoma
HMC	Histiocytoma	Solid	Fischer 344	
H-372	Leydig	Solid	Fischer 344	
H-540	Leydig	Solid	Fischer 344	

Species: Rat

Tumor Designation	Histologic Type	Form	Strain of Origin/Transplant	Comments
Iglesias	Ovarian Carcinoma	Solid	ACI	
IRS 9802	Spindle Cell Sarcoma	Solid	Fischer 344	
LC-18	Hepatoma	Solid	Fischer 344	
L. T. W. (Furth)	Leydig	Solid	Wistar	
MAMF2-TC	Fibrosarcoma	Solid	Fischer 344	
MET 149-2	Adenocarcinoma	Solid	Fischer 344	
MNU-Buffalo	Mammary Carcinoma	Solid	Buffalo	Several Lines
MtT	Anterior Pituitary	Solid	Fischer, Wistar	Several Lines
Murphy-Sturm Lymphosarcoma (MSL)	Lymphosarcoma	Solid	CRL, Wistar, Fischer 344, Sprague-Dawley	
NBW-37	T cell Lymphoma	Mince	Fischer 344	
Novikoff Hepatoma (Hepatoma NK)	Hepatoma	Solid or Ascites	Random Bred Albino	Sprague-Dawley weanlings
NS104	Rhabdomyosarcoma	Solid	Fischer 344	
OR-16-3	Thymus Tumor	Solid	Fischer 344	
R35	Mammary Adenocarcinoma	Solid	Holtzman	
R3149	Leukemia	Solid	Fischer 344	
R3259	Giant Cell Sarcoma	Solid	Fischer 344	
R3327	Prostate	Solid	Copenhagen 2331	
R3327 (Pap)	Prostate	Solid	Copenhagen 2331	
Rice 500	Leydig	Solid	Fischer 344	
Rice D6	Leydig	Solid	Fischer 344	
Riejoel	Thyroid Adenocarcinoma	Solid	Fischer 344	
RNC 259	Pheochromocytoma	Solid	NEDH	
RNC 288	Insylinoma	Solid	NEDH	
RNK-16	LGL Leukemia	Solid or Spleen Homogenate	Fischer 344	
SMT-2A	Mammary Carcinoma	Solid	Fischer 344	
Swarm	Chondrosarcoma	Solid	Sprague-Dawley	
TR.CLXXXVIII	Melanoma	Solid	ACI	
TR.DCXLIII	Pituitary	Solid	ACI	
Yoshida Hepatoma	Hepatoma	Ascites	Sprague-Dawley	
Yoshida Sarcoma	Sarcoma	Solid or Ascites	Holzman, S-D	

Rat Tumors From Dr. Robert Noble

(Endocrine-Responsive)

Information concerning the endocrinologic characteristics of the various tumor systems indicated in the “comments” has been provided by Dr. Noble.

Species: Rat (Noble)

Tumor Designation	Histologic Type	Form	Strain of Origin/ Transplant	Comments
1 Cvx-34A(1)	Cervical Carcinoma	Solid	NB	
1 Cvx-44Z	Cervical Carcinoma	Solid	NB	Estrogen dependent
1 Lym-206	Lymphoma	Solid	NB	Hormone stimulated
1 Lym-209(A)	Lymphoma	Solid	NB	Hormone stimulated, VLB sensitive
1 Lym-214	Lymphosarcoma	Solid	NB	Hormone stimulated
1 Og-3	Osteogenic Sarcoma	Solid	NB	
1 Pan-14Ax(1)	Adenocarcinoma	Solid	NB	Hormone stimulated
1 Tes-13E	Leydig Cell Carcinoma	Solid	NB	Estrogen dependent
1 Tes-15E	Leydig Cell Carcinoma	Solid	NB	Estrogen dependent
2 Lym-11(a)	Metaplastic, Adenocarcinoma Fibroblast Overgrowth	Solid	NB	Estrogen dependent
2-Pan-6A	Pituitary Adenoma	Solid	NB	Hormone stimulated
2 Pr-9F	Prostatic Adenocarcinoma	Solid	NB	Estrogen dependent
2 Pr-12	Prostatic Adenocarcinoma	Solid	NB	Estrogen dependent
2 Pr-112Bx(1)	Prostatic Carcinoma, Scirrhous	Solid	NB	
2 Pr-114B	Prostatic Adenocarcinoma	Solid	NB	Estrogen dependent
2 Pr-121D(1)	Prostatic Carcinoma, Secretory	Solid	NB	Adrogen Dependent
2 Pr-121D(1)/R	Prostatic Carcinoma	Solid	NB	Resistant to testosterone
2 Ut-10(5)	Fibroma	Solid	NB	Estrogen dependent
3 Kid-13	Kidney Adenocarcinoma	Solid	NB	
3 Lym-19	Lymphosarcoma	Solid	NB	
4 Pan-6	Adenocarcinoma	Solid	NB	
4 Sk-3A(3)Z	Squamous Cell Carcinoma	Solid	NB	
4 Ut	Hemangiosarcoma	Solid	NB	
4 Ut-6(2)	Fibrosarcoma	Solid	NB	Estrogen dependent of hormone stimulated
5 Pan-7	Undifferentiated Pancreatic Carcinoma	Solid	NB	
5 Sal	Undifferentiated Carcinoma	Solid	NB	
5 Sk-3	Melanoma	Solid	NB	
5 Ut-2	Uterine Adenocarcinoma	Solid	NB	Estrogen dependent (?)
6 Pan-4	Undifferentiated Pancreatic Carcinoma	Solid	NB	
7 Ut-13	Endometrial Adenocarcinoma	Solid	NB	

Species: Rat (Noble)

Tumor Designation	Histologic Type	Form	Strain of Origin/ Transplant	Comments
8 Lym-9(1)	Lymphosarcoma	Solid	NB	VLB resistant
8 Lym-108(1)	Lymphatic Leukemia	Solid	NB	VLB resistant
9 Lym-23	Lymphosarcoma	Solid	NB	
10 Lym-4	Negative Spleen	Solid	NB	
11 Lym-9	Lymphosarcoma	Solid	NB	
13 Pr-5	Prostatic Carcinoma, Undifferentiated	Solid	NB	Estrogen pellet implant required
14 Lym-5	Lymphosarcoma stimulated	Solid	NB	Hormone
14 Pr-5	Prostatic Carcinoma	Solid	NB	
15 Pr-2	Prostatic Adenocarcinoma	Solid	NB	
16 Pr-3	Prostatic Adenocarcinoma	Solid	NB	
17 Lym-4	Lymphosarcoma implant required	Solid	NB	Estrogen pellet
17 Lym-5	Leukemia	Solid	NB	
18 Lym-6	Lymphosarcoma	Solid	NB	Estrogen dependent
19 Lym-3	Lymphosarcoma	Solid	NB	Estrogen dependent
19 Pr-19	Prostatic Fibroadenoma	Solid	NB	
20 Pr-1	Prostatic Fibroadenoma	Solid	NB	
20 Lym-3	Lymphosarcoma	Solid	NB	Estrogen pellet implant required
21 Pr-9	Prostatic Carcinoma	Solid	NB	
22 Pr-8	Prostatic Adenocarcinoma	Solid	NB	

IN VITRO Established Cell Lines

A. *Quality Control and Characterization*- Procedures for the incorporation of new cell lines into the Tumor Bank: Upon receipt, each cell line is immediately transferred to fresh antibiotic free medium and cultured for one week, after which it is tested for mycoplasma (PPLO) contamination. Standard culture procedures under aerobic and anaerobic conditions, as well as the orcein staining procedure of Fogh, are used. The PPLO medium is extremely rich, and this procedure will also detect most bacterial and fungal contaminants.
   For human cell lines, we performed testing on the original stocks which includes sterility (fluid thioglycolate medium and tryptic soy broth), mycoplasma, MAP (PVM, Poly, GD VII Ectro, Reo 3, Sendai, MVM, MHV, LCM and LDH) and viral testing. The PCR viral testing we performed on cell lines included HBV, HIVI, HIVII, HTLV-1, HTLVII, JCV and MoMuL.
   The NCI-60 panel of human tumor cell lines are perhaps some of the most extensively characterized cell lines in broad laboratory use. Authentication is done by Applied Biosystems AmpFISTR Identifiler testing with PCR amplification. Molecular Characterization Data is publicly available on the DTP web site at: Molecular Characterization Data (http://dtp.cancer.gov/mtargets/mt_index.html).
B. *Freezing and Storage-* The cell cultures are frozen in ampules containing 1.0 ml of cell suspension at 2-6 x 10^6 cells/ml in fresh culture medium containing 10% DMSO. Freezing is performed as described previously. Twenty-four hours after freezing, a representative ampule is removed, thawed, and viable cell count is performed using the trypan blue dye exclusion procedure. The culture is also tested for its ability to initiate a heavy viable culture. Cell preparations which show less than 50% viability or poor growth are discarded and a new lot is prepared. Keeping cells stored properly, thawing them and maintaining cells requires careful attention to details. Unused frozen vials should be kept at -70 to -196 °C (preferably in vapor phase).
C. *Recommended Thawing Procedure-* as described in the PROCEDURES section of this document.

Human *In Vitro* Cell Lines

Species: Human *In Vitro* **Cell Lines**

Designation	Tissue of Origin	Histologic Type	Growth Medium	Comments
786-0	Kidney	Renal Cell Carcinoma	RPMI 1640	From Dr. Williams
A2780	Ovary	Adenocarcinoma	RPMI 1640	From Dr. Hamilton
A498	Kidney	Renal Cell Carcinoma	RPMI 1640	ATCC
A549	Lung	Non-small Cell	RPMI 1640	ATCC
A704	Kidney	Renal Cell Carcinoma	RPMI 1640	ATCC
ACHN	Kidney	Renal Cell Carcinoma	RPMI 1640	From Dr. Schmid
ASPS-1	Lymph Node	Alveolar Soft Part Sarcoma	DMEM:F12;10%FBS	From Vistica
BT-549	Breast	Adenocarcinoma	RPMI 1640	ATCC
CAKI-1	Kidney	Renal Cell Carcinoma	RPMI 1640	From Dr. Loveless
CCRF-CEM	Lymph	Leukemia	RPMI 1640	ATCC
CCRF-SB	Lymph	Leukemia	RPMI 1640	ATCC
CHA-59	Bone	Osteosarcoma	RPMI 1640	From Drs. Shoemaker and McLachlan
COLO 205	Colon	Adenocarcinoma	RPMI 1640	ATCC
DMS-114	Lung	Small Cell	RPMI 1640	From Dr. Pettengill
DU-145	Prostate	Carcinoma	RPMI 1640	ATCC
EKVX	Lung	Adenocarcinoma	RPMI 1640	From Dr. Fodstad
HCC-2998	Colon	Adenocarcinoma	RPMI 1640	From Dr. Fidler
HCT-15	Colon	Carcinoma	RPMI 1640	ATCC
HCT-116	Colon	Adenocarcinoma	RPMI 1640	ATCC
HOP-18	Lung	Large Cell Carcinoma	RPMI 1640	From Drs. Liu/Casero
HOP-62	Lung	Adenocarcinoma	RPMI 1640	From Drs. Liu/Casero
HL-60	Ascites	Pro-myelocytic Leukemia	RPMI 1640	From E. Jensen
H-MESO-1		Mesothelioma	RPMI 1640	
HS 578T	Breast	Adenocarcinoma	RPMI 1640	ATCC
HS 913T	Lung	Mixed Cell	RPMI 1640	ATCC
HT-29	Colon	Adenocarcinoma	RPMI 1640	ATCC
IGR-OV1	Ovary	Adenocarcinoma	RPMI 1640	From Dr. Benard
KM 20L2	Colon	Adenocarcinoma	RPMI 1640	From Dr. Fidler
K-562	Lymph	Leukemia	RPMI 1640	ATCC
LOVO	Colon	Adenocarcinoma	RPMI 1640	ATCC
LOX IMVI	Lymph Node Metastasis	Amelanotic Melanoma	RPMI 1640	From Dr. Fodstad
LXFL 529	Lung	Large Cell Carcinoma	RPMI 1640	From Dr. Fiebig
MALME-3M	Lung Metastasis	Melanoma	RPMI 1640	ATCC

Species: Human *In Vitro* **Cell Lines**

Designation	Tissue of Origin	Histologic Type	Growth Medium	Comments
MCF7	Breast	Adenocarcinoma	RPMI 1640	From Dr. Cowan
MDA-MB-231	Breast	Adenocarcinoma	RPMI 1640	From Dr. Moore
MDA-MB-435	Melanoma	Adenocarcinoma	RPMI 1640	From Dr. Steeg
MDA-MB-468	Breast	Adenocarcinoma		
MOLT-4	Lymph	Leukemia	RPMI 1640	ATCC
MX-1	Breast	Carcinoma	RPMI 1640	From Dr. Giovannelli
M14		Amelanotic Melanoma	RPMI 1640	From Dr. Kern
M19-MEL		Amelanotic Melanoma	RPMI 1640	From Dr. Kern
NC-37	Lymphoblast	Normal		
NCI-293TT	Embryonic Kidney	Kidney	DMEM 10% FBS	From Drs. Schiller and Pang
NCI-H1299	Lung	Adenocarcinoma	RPMI 1640	From Drs. Gazdar and Minna
NCI-H2887	Lung	Adenocarcinoma	RPMI 1640	From Drs. Gazdar and Minna
NCI-H3122	Lung	Adenocarcinoma	RPMI 1640	From Drs. Gazdar and Minna
NCI-H322M	Lung	Adenocarcinoma	RPMI 1640	From Dr. Gazdar
NCI-H3255	Lung	Adenocarcinoma	RPMI 1640	From Drs. Gazdar and Minna
NCI-H358M	Lung	Bronchioalveolar Carcinoma	RPMI 1640	From Dr. Gazdar
NCI-H460	Lung	Large Cell	RPMI 1640	From Dr. Gazdar
NCI-H522	Lung	Adenocarcinoma	RPMI 1640	From Dr. Gazdar
NCI-H69	Lung	Small Cell Carcinoma	RPMI 1640	From Dr. Gazdar
NCI-H82	Lung	Small Cell Carcinoma	RPMI 1640	From Dr. Gazdar
NCI-H838	Lung	Adenocarcinoma	RPMI 1640	From Drs. Gazdar and Minna
NCI/ADR-RES	Ovary	Adenocarcinoma	RPMI 1640	From Dr. Cowan
OVCAR-3	Ovary	Adenocarcinoma	RPMI 1640	From Drs. Ozols and Hamilton
OVCAR-4	Ovary	Adenocarcinoma	RPMI 1640	From Drs. Ozols and Hamilton
OVCAR-5	Ovary	Adenocarcinoma	RPMI 1640	From Drs. Ozols and Hamilton
OVCAR-8	Ovary	Adenocarcinoma	RPMI 1640	From Drs. Ozols and Hamilton
PC-3	Prostate	Carcinoma	RPMI 1640	From Dr. Kaighn
PC-3/M	Prostate	Carcinoma	RPMI 1640	From Dr. Kaighn
RPMI-7951		Melanoma	RPMI 1640	ATCC
RPMI-8226	Lymph	Leukemia	RPMI 1640	ATCC
RXF 393	Kidney	Renal Cell Carcinoma	RPMI 1640	From Dr. Fiebig
RXF 631	Kidney	Renal Cell Carcinoma	RPMI 1640	From Dr. Fiebig
SF-268	CNS	Glioblastoma	RPMI 1640	From Dr. Rosenblum

Species: Human *In Vitro* **Cell Lines**

Designation	Tissue of Origin	Histologic Type	Growth Medium	Comments
SF-539	CNS	Glioblastoma	RPMI 1640	From Dr. Rosenblum
SHP-77	Lung	Small Cell Carcinoma	RPMI 1640	From Dr. Fisher
SK-OV-3	Ovary	Adenocarcinoma	RPMI 1640	ATCC
SK-MEL-2		Melanoma	RPMI 1640	ATCC
SK-MEL-5		Melanoma	RPMI 1640	ATCC
SK-MEL-28		Melanoma	RPMI 1640	ATCC
SK-MES-1	Lung	Squamous Cell Carcinoma	RPMI 1640	ATCC
SN12A1	Kidney	Renal Cell Carcinoma	RPMI 1640	From Dr. Fidler
SN12C	Kidney	Renal Cell Carcinoma	RPMI 1640	From Dr. Fidler
SN12K1	Kidney	Renal Cell Carcinoma	RPMI 1640	From Dr. Fidler
SN12L1	Kidney	Renal Cell Carcinoma	RPMI 1640	From Dr. Fidler
SN12S1	Kidney	Renal Cell Carcinoma	RPMI 1640	From Dr. Fidler
SNB-7	CNS	Glioblastoma	RPMI 1640	From Dr. Kornblith
SNB-19	CNS	Glioblastoma (Same as U251)	RPMI 1640	From Dr. Kornblith
SNB-75	CNS	Glioblastoma	RPMI 1640	From Dr. Kornblith
SNB-78	CNS	Astrocytoma	RPMI 1640	From Dr. Kornblith
SR	Pleural effusion	Lymphoma	RPMI 1640	From Dr. Urba
SW-620	Colon		RPMI 1640	ATCC
T-47D	Breast		RPMI 1640	Not distributed to commercial firms or for commercial purposes
TK-10	Kidney	Renal Cell Carcinoma	RPMI 1640	From Dr. Clayman
UACC-62		Melanoma	RPMI 1640	From Dr. Leibowitz
UACC-257		Melanoma	RPMI 1640	From Dr. Leibowitz
UCSD 242L		Melanoma	RPMI 1640	From Dr. Taetle
UCSD 354L		Melanoma	RPMI 1640	From Dr. Taetle
UO-31	Kidney	Renal Cell Carcinoma	RPMI 1640	From Dr. Linehan
U-251	CNS	Glioblastoma (Same as SNB-19)	RPMI 1640	From Dr. Bigner
WIDR	Colon	Adenocarcinoma	RPMI 1640	ATCC
XF 498	CNS	Glioblastoma	RPMI 1640	From Dr. Fiebig

NIH Licensed Cell Lines

Species: NIH Licensed Cell Lines

Designation	Tissue of Origin	Histologic Type	Growth Medium	Comments
2A2	Human ROR1	Chimeric	2A2	Human ROR1
38290-TTT	Murine Fibrosarcoma	Sarcoma	DMEM	NCI at Frederick
4G11	Mouse	Hybridoma	RPMI 1640	
A2780	Human	Adenocarcinoma	RPMI 1640	Hamilton
Colon 38	Murine Colon	Adenocarcinoma	DMEM	NCI at Frederick
EMT-6	Murine Adenocarcinoma	Mammary Adenocarcinoma	DMEM	NCI at Frederick
Glioma 261	Murine Glioma	Glioma	RPMI 1640	NCI at Frederick
NCI-293TT	Human Embryonic Kidney	Kidney	DMEM 10% FBS	Schiller/Pang
NCI-CHOdeltafurin	Ovarian		DMEM, 10% FBS, 200uM proline, 1% Pen-Strep	Fitzgerald
NCI-H1284	Human Lung	Adenocarcinoma	ACL-4 + 10% FBS	Gazdar/Minna
NCI-H1299	Human Lung NSCLC	Adenocarcinoma	RPMI 1640	Gazdar/Minna
NCI-H1395	Human Lung	Adenocarcinoma	RPMI 1640	Gazdar/Minna
NCI-H1435	Human Lung NSCLC	Adenocarcinoma	ACL-4(DMEM:F12)	Gazdar/Minna
NCI-H1437	Human Lung NSCLC	Adenocarcinoma	RPMI 1640	Gazdar/Minna
NCI-H1568	Human Lung NSCLC	Adenocarcinoma	RPMI 1640	Gazdar/Minna
NCI-H1944	Human Lung NSCLC	Adenocarcinoma	RPMI 1640	Gazdar/Minna
NCI-H1993	Human Lung NSCLC	Adenocarcinoma	RPMI 1640	Gazdar/Minna
NCI-H226	Human Lung	Squamous Cell	RPMI 1640	Gazdar
NCI-H23	Human Lung	Adenocarcinoma	RPMI 1640	Gazdar/Minna
NCI-H2887	Human Lung NSCLC	Adenocarcinoma	RPMI 1640	Gazdar/Minna
NCI-H3122	Human Lung NSCLC	Adenocarcinoma	RPMI 1640	Gazdar/Minna
NCI-H322M	Human Lung	Bronchi Alveolar Carcinoma	RPMI 1640	Gazdar
NCI-H3255	Human Lung NSCLC	Adenocarcinoma	ACL-4 + 10% FBS + 1% Glutamine	Gazdar/Minna
NCI-H358	Human Lung NSCLC	Adenocarcinoma	RPMI 1640	Gazdar/Minna
NCI-H460	Human Lung	Large Cell Carcinoma	RPMI 1640	Gazdar
NCI-H522	Human Lung	Adenocarcinoma	RPMI 1640	Gazdar
NCI-H719	Human Lung SCLC	Classic Small Cell Carcinoma	ACL-4	Gazdar/Minna
NCI-H838	Human Lung NSCLC	Adenocarcinoma	RPMI 1640	Gazdar/Minna
OVCAR-3	Human Ovarian	Carcinoma	RPMI 1640	Hamilton
OVCAR-4	Human Ovarian	Carcinoma	RPMI 1640	Hamilton
OVCAR-5	Human Ovarian	Carcinoma	RPMI 1640	Hamilton
OVCAR-8	Human Ovarian	Carcinoma	RPMI 1640	Hamilton
PAN 02	Murine Pancreas	Ductal Adenocarcinoma	RPMI 1640	NCI at Frederick

NCI Anti-Cancer Cell Line Panel

NCI Anti-Cancer Cell Line Panel

Type	Cell Line	Sex	Age	Histologic Type	Comments	Treat-ment	Source
COLON	COLO 205	M	70	Adenocarcinoma	Can Res 38: 1345-1455, 1978		
COLON	HCC-2998			Carcinoma		N	
COLON	HCT-15			Adenocarcinoma	Can Res 39: 1020-1025, 1970		
COLON	HCT-116			Carcinoma	Can Res 41: 1761-1766, 1981		
COLON	HT-29	F	44	Adenocarcinoma, GR III	Human Tumor Cells *In Vitro*: 115-159, 1975		Primary
COLON	SW-620	M	51	Adenocarcinoma	Can Res 36: 4562-4569, 1976		Metastasis
CNS	SF-268	F	24	Anaplastic Astrocytoma	Acta Neuropathol 75: 92-103, 1987		
CNS	SF-295	F	67	Glioblastoma- Multiforme	Acta Neuropathol 75: 92-103, 1987		
CNS	SF-539				J Neuropathol Exp Neurol 40: 201-229, 1981		
CNS	SNB-19	M	47	Glioblastoma (Same as U251)	Cancer 47: 255, 1981	N	
CNS	SNB-75	F		Astrocytoma		N	
CNS	U-251	M	75	Glioblastoma (Same as SNB-19)	J Neuropathol Exp Neurol 40: 410-427, 1981		
LEUKEMIA	CCRF-CEM	M	4	Acute Lymphoblastic Leukemia	Can Res 18: 522-529, 1965		
LEUKEMIA	HL-60(TB)	F	36	Promyelocytic Leukemia	Nature 270: 347-349, 1977		PBL
LEUKEMIA	K-562	F	53	Chronic Myelogenous Leukemia	Blood 45: 321-334, 1975		Pleural Effusion
LEUKEMIA	MOLT-4	M	19	Acute Lymphoblastic Leukemia	JCNI 49:891-895, 1972		PB
LEUKEMIA	RPMI-8226	M	61	Myeloma	Proc Soc Exp Biol Med 125: 1246-1250, 1967		PB
LEUKEMIA	SR	M	11	Large Cell, Immunoblastic		Y	
LUNG	cGMP A549	M	58	Adenocarcinoma	JNCI 51: 1417-1423, 1973		Primary
LUNG	EKVX	M		Adenocarcinoma			
LUNG	HOP-62	F	60	Adenocarcinoma		N	
LUNG	HOP-92	M	62	Large Cell, Undifferentiated		N	
LUNG	NCI-H23			Adenocarcinoma	Can Res 45: 2913-2923, 1985	N	

NCI Anti-Cancer Cell Line Panel

Type	Cell Line	Sex	Age	Histologic Type	Comments	Treat-ment	Source
LUNG	NCI-H226			Squamous	Can Res 45: 2913-2923, 1985		
LUNG	NCI-H322M			Small Cell Bronchioalveolar Carcinoma		N	
LUNG	NCI-H460	M		Large Cell Carcinoma	Science 246: 491-494, 1989	N	Pleural Effusion
LUNG	NCI-H522			Adenocarcinoma	Can Res 45: 2913-2923, 1985		
MAMMARY	MCF7	F	69	Adenocarcinoma	JCNI 51:1409-1417, 1973	Y	
MAMMARY	HS 578T	F	74	Carcinosarcoma	JNCI 58:1795-1806, 1977		Primary
MAMMARY	MDA-MB 231	F	51	Adenocarcinoma	JNCI 53: 661-674, 1974	Y	
MAMMARY	MDA-MB-468	F	51	Adenocarcinoma	Cancer Res 40: 3118-3129, 1980		
MAMMARY	BT-549	F	72	Papillary Infiltrating Ductal Carcinoma	No Publication		Metastasis
MAMMARY	T-47D	F	54	Infiltrating Ductal Carcinoma	Eur J Cancer 15: 659-670, 1979		Not for commercial use
MELANOMA	LOX IMVI			Malignant Amelanotic Melanoma	Int J Cancer 41:442-449, 1988		
MELANOMA	M14						
MELANOMA	MALME-3M	M	43	Malignant Melanoma	Human Tumor Cells *In Vitro*, 115-159, 1975		Metastasis
MELANOMA	MDA-MB-435	F	31	Adenocarcinoma	Can Res 40: 3118-3129, 1980	N	
MELANOMA	SK-MEL-2	M	60	Malignant Melanoma	Human Tumor Cells *In Vitro*, 115-159, 1975		Metastasis
MELANOMA	SK-MEL-5			Malignant Melanoma	PNAS 73: 3278-3282, 1976		Metastasis
MELANOMA	SK-MEL-28			Malignant Melanoma	PNAS 73: 3278-3271, 1976		
MELANOMA	UACC-62						
MELANOMA	UACC-257						
OVARIAN	IGR-OV1	F	47	Cystoadenocarcinoma	Can Res 45: 4970-4979, 1985	N	
OVARIAN	NCI/ADR-RES	F		Adenocarcinoma	JNCI 90(11): 6/3/1998		See Note *

NCI Anti-Cancer Cell Line Panel

Type	Cell Line	Sex	Age	Histologic Type	Comments	Treat-ment	Source
OVARIAN	OVCAR-3	F	60	Adenocarcinoma	Can Res 43: 5379-5389, 1983	Y	Ascites
OVARIAN	OVCAR-4	F	42	Adenocarcinoma	Sem Oncol 11: 285-298, 1984	Y	
OVARIAN	OVCAR-5	F	67	Adenocarcinoma	Sem Oncol 11: 285-298, 1984	N	
OVARIAN	OVCAR-8	F	64	Adenocarcinoma	Sem Oncol 11: 285-298, 1984	Y	
OVARIAN	SK-OV-3	F	64	Adenocarcinoma	Human Tumor Cells *In Vitro*, 115-159, 1975	Y	Ascites
PROSTATE	DU-145	M	69	Carcinoma	Int J Cancer 21: 274-281, 1978	Y	
PROSTATE	PC-3	M	62	Adenocarcinoma	Invest Urol 17: 16-23, 1979	Y	Metastasis
RENAL	786-O	M	58	Adenocarcinoma	In Vitro 12: 623-627, 1976	N	
RENAL	A498	F	52	Adenocarcinoma	JNCI 51: 1417-1423, 1973		
RENAL	ACHN	M	22	Renal Cell Carcinoma	Can Res 42: 4948-4953, 1973		
RENAL	CAKI-1	M	49	Clear Cell Carcinoma	Human Tumor Cells *In Vitro*, 115-159, 1975	Y	Metastasis
RENAL	RXF 393	M	54	Poorly Differentiated Hypernephroma	Contrib Oncol 42, 1992	N	
RENAL	SN12C	M	43	Carcinoma	Can Res 46: 4109-4115, 1986		
RENAL	TK-10	M	43	Spindle Cell Carcinoma	Can Res 47: 3856-3862, 1987	N	
RENAL	UO-31			Carcinoma		N	

**Prior to 1998, NCI/ADR-RES was known as MCF-7/ADR-RES multidrug-resistant cell line. The cell line was re-designated because DNA fingerprinting analysis showed that NCI/ADR-RES was unrelated to MCF-7. Journal of the National Cancer Institute, Vol. 90, No. 11, June 3, 1998*

NON-human *In Vitro* Cell Lines

Species: Non-human ***In Vitro*** **Cell lines**

Designation	Species	Histologic Type	Tissue of Origin	Growth Medium	Comments
4G11	Mouse	Hybridoma		RPMI/10% FCS	From Nissely
$B16F_1$	Mouse	Melanoma	Ear (B16)	EMEM	From Fidler
$B16F_{10}$	Mouse	Melanoma	Lung met.	EMEM	From Fidler; high lung met.
$B16F^{Lr6}$	Mouse	Melanoma	Lung met.	EMEM	From Fidler; low lung met.
B16BL-6	Mouse	Melanoma	Bladder met.	EMEM	From Fidler; intermediate lung met.
C3HIOT ½	Mouse				No info
CHO 1C T6	Hamster	Normal	Ovary	F12	
Colon 26	Mouse	Carcinoma	Colon	RPMI 1640	
FBL-3	Mouse	Leukemia			
M5076	Mouse	Reticulum Cell Sarcoma		RPMI 1640	
MADB 106	Rat				
MPC-11	Mouse	Myeloma			
P388	Mouse	Leukemia	Ascites	RPMI 1640	
P388/ADR	Mouse	Leukemia	Ascites	RPMI 1640	
P3X63	Mouse				No info
PAN 02	Mouse	Adenocarcinoma	Pancreas	RPMI 1640	
VX-2	Rabbit	Alveolar Soft Part Sarcoma		DMEM:F12; 10% FBS	Samuel, Albert Einstein
YAC	Mouse	Lymphoma		EMEM	

Yeast Strains

Species: Yeast Strains Used for NCI Compound Screening

SPY#	Relevant Mutation(s)	Complete Genotype
50636	*rad52*	*MATα rad52ΔURA3 erg6ΔLEU2 pdr1ΔLEU2 pdr3ΔhisG::URA3::hisG ade2 ade3 leu2 trp1 ura3 cyh2*
50644	none (wild-type control)	*MATα erg6ΔLEU2 pdr1ΔLEU2 pdr3ΔhisG::URA3::hisG ade2 ade3 leu2 ura3 cyh2*
50648	*rad50*	*MATα rad50Δkan^r ade2 ade3 leu2 ura3 trp1 cyh2*
50650	*mgt1*	*MAT mtg1Δkan^r erg6ΔLEU2 pdr1ΔLEU2 pdr3ΔhisG::URA3::hisG ade2 ade3 leu2 trp1 ura3 cyh2*
50652	*rad50*	*MATα rad50Δkan^r erg6ΔLEU2 pdr1ΔLEU2 pdr3ΔhisG::URA3::hisG ade2 ade3 leu2 ura3 cyh2*
50654	*mec2-1*	*MATα mec2-1 erg6ΔLEU2 pdr1ΔLEU2 pdr3ΔhisG::URA3::hisG ade2 ade3 leu2 ura3 cyh2*
50740	*rad14*	*MATα rad14Δkan^r erg6ΔLEU2 pdr1ΔLEU2 pdr3ΔhisG::URA3::hisG ade2 ade3 leu2 ura3 cyh2*
50745	*sgs1 mgt1*	*MATα sgs1ΔLEU2 mgt1kan^r erg6ΔLEU2 pdr1ΔLEU2 pdr3ΔhisG ade2 ade3 leu2 ura3 cyh2*
50768	*GPD*p-*CLN2*	*MATα URA3-GPD*p-*CLN2 erg6ΔTRP1 pdr1ΔLEU2 pdr3ΔhisG ade2 ade3 leu2 trp1 ura3 cyh2*
50771	*GPD*p-*CLN2 rad14*	*MATα URA3-GPD*p-*CLN2 rad14Δkan^r erg6ΔTRP1 pdr1ΔLEU2 pdr3ΔhisG ade2 ade3 leu2 ura3 cyh2 trp1*
50779	*bub3*	*MATα bub3ΔURA3 erg6ΔTRP1 pdr1ΔLEU2 pdr3ΔhisG ade2 ade3 leu2 ura3 cyh2 trp1*
50780	none (wild-type control)	*MATα erg6ΔTRP1 pdr1ΔLEU2 pdr3ΔhisG ade2 ade3 leu2 trp1 ura3 cyh2*
50834	*mlh1*	*MATα mlh1ΔTRP1 erg6ΔTRP1 pdr1ΔLEU2 pdr3ΔhisG ade2 ade3 leu2 ura3 cyh2*
50835	*sgs1*	*MATα sgs1ΔLEU2 erg6ΔTRP1 pdr1ΔLEU2 pdr3ΔhisG ade2 ade3 leu2 ura3 cyh2*
50858	*mlh1 rad18*	*MATα mlh1ΔTRP1 rad18ΔLEU2 erg6ΔLEU2 pdr1ΔLEU2 pdr3ΔhisG::URA3::hisG ade2 ade3 leu2 ura3 cyh2* (*trp1*?)
50891	*rad18*	*MATα rad18ΔURA3 erg6ΔTRP1 pdr1ΔLEU2 pdr3ΔhisG ade2 ade3 leu2 trp1 ura3 cyh2*

Notes:

- Store at -70°C to -80°C. To establish working stock: scrape frozen culture with a wooden applicator stick and apply sample to agar-containing media (vials should remain frozen).
- All strains are derived from L. Hartwell laboratory strains in the A364a genetic background.
- The *erg6 pdr1 pdr3* mutations in all strains serve to make yeast more sensitive to a variety of compounds.
- The allele present at the *TRP1* locus is unknown for SPY50649 (strain is phenotypically Trp$^+$ by virtue of *TRP1* at the *MLH1* locus).

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