Modification Form for Permit BIO-RRI-0035

Permit Holder: Mike Strong

Approved Personnel
(Please stroke out any personnel to be removed)

Wendy Strong

May Gohar

Wencheng Yang

Kathy Volkening

Danae Campos-Melo

Brian Keller

Cheryl Leystra-Lantz

Cristian Droppelmann

Additional Personnel
(Please list additional personnel here)

Jessica Kac

	Please stroke out any approved Biohazards to be removed below	Write additional Biohazards for approval below. Give the full name - do not abbreviate.
Approved Microorganisms	E. coli (DH5 alpha, BL21, XL1 Blue, SCS 110) S. cerevisiae (AH09, Y187)	
Approved Primary and Established Cells	Human [established]: HEK-293T, IMR32, HCN1A, HeLa. Rodent [established]: Neuro2A, PC12, EOC20, NSC34, BV2, LADMAC, L929/292, NIH 3T3.	mouse C2C12
Approved Use of Human Source Material	Human organs or tissues (unpreserved)	
Approved Genetic Modifications (Plasmids/Vectors)	SV 40 Large T antigen, E1A oncogene. [Plasmids]: pAS2-1, pBluescript SK9(-), pBridge, pcDNA3.1(+), pcDNA3.1/myc-HisA, pcDNA3.1/myc-HisB, pcDNA3.1/myc-HisC, pCMV-SPORT6, pCMX, pCRII-TOPO, see	
Approved Use of Animals		
Approved Biological Toxin(s)		

ATCC | THE ESSENTIALS OF LIFE SCIENCE RESEARCH GLOBALLY DELIVERED

ATCC Advanced Catalog Search » **Product Details**

Product Description

Before submitting an order you will be asked to read and accept the terms and conditions of ATCC's Material Transfer Agreement or, in certain cases, an MTA specified by depositing institution.

Customers in Europe, Australia, Canada, China, Hong Kong, India, Israel, Japan, Korea, Macau, Mexico, New Zealand, Singapore, and Taiwan, R.O.C. must contact a local c for pricing information and to place an order for ATCC cultures and products.

Print

Cell Biology

ATCC® Number: CRL-1772™ Order this Item **Price:** $279.00

Designations: C2C12

Biosafety Level: 1

Shipped: frozen

Medium & Serum: See Propagation

Growth Properties: adherent

Organism: *Mus musculus* (mouse)

Morphology: myoblast

PHOTO

Source:
Tissue: muscle
Strain: C3H
Cell Type: myoblast;

Permits/Forms: In addition to the MTA mentioned above, other ATCC and/or regulatory permits may be required for the transfer of this ATCC material. Anyone purchasing ATCC material is ultimately responsible for obtaining the permits. Please click here for information regarding the specific requirements for shipment to your location.

Applications: transfection host (Nucleofection technology from Lonza
Roche FuGENE® Transfection Reagents)

Comments: This is a subclone (produced by H. Blau, et al) of the mouse myoblast cell line established by D. Yaffe and O. Saxel. [22903]
The C2C12 cell line differentiates rapidly, forming contractile myotubes and producing characteristic muscle proteins. [22953]
Treatment with bone morphogenic protein 2 (BMP-2) cause a shift in the differentiation pathway from myoblastic to osteoblastic. [23427]
Tested and found negative for ectromelia virus (mousepox).

Related Links

NCBI Entrez Search

Cell Micrograph

Make a Deposit

Frequently Asked Questions

Material Transfer Agreemer

Technical Support

Related Cell Culture Produc

Login Required

Product Information Sheet

Modification Form for Permit BIO-RRI-0035

Permit Holder: Mike Strong

Approved Personnel
(Please stroke out any personnel to be removed)

Wendy Strong

May Gohar

Wencheng Yang

Kathy Volkening

Danae Campos-Melo

Brian Keller

Cheryl Leystra-Lantz

Cristian Droppelmann

Additional Personnel
(Please list additional personnel here)

Jessie a Kaci

	Please stroke out any approved Biohazards to be removed below	Write additional Biohazards for approval below. Give the full name - do not abbreviate.
Approved Microorganisms	E. coli (DH5 alpha, BL21, XL1 Blue, SCS 110) S. cerevisiae (AH09, Y187)	
Approved Primary and Established Cells	Human [established]: HEK-293T, IMR32, HCN1A. Rodent [established]: Neuro2A, PC12, EOC20, NSC34, BV2, LADMAC, L929/292.	Human - HeLa Mouse - NIH/3T3
Approved Use of Human Source Material	Human organs or tissues (unpreserved)	
Approved Genetic Modifications (Plasmids/Vectors)	SV 40 Large T antigen, E1A oncogene. [Plasmids]: pAS2-1, pBluescript SK9(-), pBridge, pcDNA3.1(+), pcDNA3.1/myc-HisA, pcDNA3.1/myc-HisB, pcDNA3.1/myc-HisC, pCMV-SPORT6, pCMX, pCRII-TOPO, see	
Approved Use of Animals		
Approved Biological Toxin(s)		

* *PLEASE ATTACH A MATERIAL SAFETY DATA SHEET OR EQUIVALENT FOR NEW BIOHAZARDS.*
** *PLEASE ATTACH A BRIEF DESCRIPTION OF THE WORK THAT EXPLAINS THE BIOHAZARDS USED AND HOW THEY WILL BE STORED, USED AND DISPOSED OF..*

As the principal investigator, I have ensured that all of the personnel named on the form have been trained. I will ensure that this project will follow the Western Biosafety Guidelines and Procedures Manual for Containment Level 1 2 Laboratories (and the Level 3 Facilities Manual for Level 3 projects). I will ensure that UWO faculty, staff and students working in my laboratory have an up-to-date Hazard Communication Form, found at http://www.wph.uwo.ca.

Signature of Permit Holder:

Current Classification: 2 **Containment Level for Added Biohazards:** 2

Date of Last Biohazardous Agents Registry Form: Aug 27, 2010

Date of Last Modification (if applicable):

BioSafety Officer(s): J Stanley NOV 12/10 Ronald Nov.09, 2010

Chair, Biohazards Subcommittee: **Date:** 15 Nov 10

HeLa cells to be used for transcient transfection studies as per the HEK 293T and Neuro 2A cell lines.

NIH/3T3 cells to be used for transient tranfection studies for GEF activity

ATCC

ATCC Advanced Catalog Search » **Product Details**

Product Description

Before submitting an order you will be asked to read and accept the terms and conditions of ATCC's Material Transfer Agreement or, in certain cases, an MTA specified by the depositing institution.

Customers in Europe, Australia, Canada, China, Hong Kong, India, Israel, Japan, Korea, Macau, Mexico, New Zealand, Singapore, and Taiwan, R.O.C. must contact a local distributor for pricing information and to place an order for ATCC cultures and products.

Print this Page

Cell Biology

ATCC® Number: CRL-1658™ Order this Item

Price: $256.00

Designations: NIH/3T3

Biosafety Level: 1

Shipped: frozen

Medium & Serum: See Propagation

Growth Properties: adherent

Organism: *Mus musculus* (mouse)

Morphology: fibroblast

Source:
Organ: embryo
Strain: NIH/Swiss
Cell Type: fibroblast fibroblast;

Permits/Forms: In addition to the MTA mentioned above, other ATCC and/or regulatory permits may be required for the transfer of this ATCC material. Anyone purchasing ATCC material is ultimately responsible for obtaining the permits. Please click here for information regarding the specific requirements for shipment to your location.

Applications: transfection host (Nucleofection technology from Lonza
Roche FuGENE® Transfection Reagents)

Virus Susceptibility: Murine leukemia virus

Age: embryo

Comments: The NIH/3T3 is highly sensitive to sarcoma virus focus formation and leukemia virus propagation and has proven to be very useful in DNA transfection studies [PubMed ID: 222457].
Tested and found negative for ectromelia virus (mousepox).

Propagation:
ATCC complete growth medium: The base medium for this cell line is ATCC-formulated Dulbecco's Modified Eagle's Medium, Catalog No. 30-2002. To make the complete growth medium, add the following components to the base medium: bovine calf serum to a final concentration of 10%.
Atmosphere: air, 95%; carbon dioxide (CO2), 5%
Temperature: 37.0°C
Growth Conditions: The serum used is important in culturing this line. Calf serum is recommended and not fetal bovine serum. The calf serum initially employed and found to be satisfactory was from the Colorado Serum Co. Denver.

Related Links

NCBI Entrez Search

Cell Micrograph

Make a Deposit

Frequently Asked Questions

Material Transfer Agreement

Technical Support

Related Cell Culture Products

Login Required

Product Information Sheet

References:

22370: Jainchill JL, et al. Murine sarcoma and leukemia viruses: assay using clonal lines of contact-inhibited mouse cells. J. Virol. 4: 549-553, 1969. PubMed: 4311790
26133: Andersson P, et al. A defined subgenomic fragment of in vitro synthesized Moloney sarcoma virus DNA can induce cell transformation upon transfection. Cell 16: 63-75, 1979. PubMed: 84715
26134: Copeland NG, Cooper GM. Transfection by exogenous and endogenous murine retrovirus DNAs. Cell 16: 347-356, 1979. PubMed: 222457
28301: Loffler S, et al. CD9, a tetraspan transmembrane protein, renders cells susceptible to canine distemper virus. J. Virol. 71: 42-49, 1997. PubMed: 8985321
32372: Berson JF, et al. A seven-transmembrane domain receptor involved in fusion and entry of T-cell-tropic human immunodeficiency virus type 1 strains. J. Virol. 70: 6288-6295, 1996. PubMed: 8709256
32478: Jones PL, et al. Tumor necrosis factor alpha and interleukin-1beta regulate the murine manganese superoxide dismutase gene through a complex intronic enhancer involving C/EBP-beta and NF-kappaB. Mol. Cell. Biol. 17: 6970-6981, 1997. PubMed: 9372929
32502: Gonzalez Armas JC, et al. DNA immunization confers protection against murine cytomegalovirus infection. J. Virol. 70: 7921-7928, 1996. PubMed: 8892915
32522: Siess DC, et al. Exceptional fusogenicity of chinese hamster ovary cells with murine retrovirus suggests roles for cellular factor(s) and receptor clusters in the membrane fusion process. J. Virol. 70: 3432-439, 1996. PubMed: 8648675
32547: Jang SI, et al. Activator protein 1 activity is involved in the regulation of the cell type-specific expression from the proximal promoter of the human profilaggrin gene. J. Biol. Chem. 271: 24105-24114, 1996. PubMed: 8798649
32557: Medin JA, et al. Correction in trans for Fabry disease: expression, secretion, and uptake of alpha-galactosidase A in patient-derived cells driven by a high-titer recombinant retroviral vector. Proc. Natl. Acad. Sci. USA 93: 7917-7922, 1996. PubMed: 8755577
32568: Lee JH, et al. The proximal promoter of the human transglutaminase 3 gene. J. Biol. Chem. 271: 4561-4568, 1996. PubMed: 8626812
32582: Chang K, Pastan I. Molecular cloning of mesothelin, a differentiation antigen present on mesothelium, mesotheliomas, and ovarian cancers. Proc. Natl. Acad. Sci. USA 93: 136-140, 1996. PubMed: 8552591
32702: Cranmer LD, et al. Identification, analysis, and evolutionary relationships of the putative murine cytomegalovirus homologs of the human cytomegalovirus UL82 (pp71) and UL83 (pp65) matrix phosphoproteins. J. Virol. 70: 7929-7939, 1996. PubMed: 8892916
32724: Shisler J, et al. Induction of susceptibility to tumor necrosis factor by E1A is dependent on binding to either p300 or p105-Rb and induction of DNA synthesis. J. Virol. 70: 68-77, 1996. PubMed: 8523594
32756: Cavanaugh VJ, et al. Murine cytomegalovirus with a deletion of genes spanning HindIII-J and -I displays altered cell and tissue tropism. J. Virol. 70: 1365-1374, 1996. PubMed: 8627652
32905: Westerman KA, Leboulch P. Reversible immortalization of mammalian cells mediated by retroviral transfer and site-specific recombination. Proc. Natl. Acad. Sci. USA 93: 8971-8976, 1996. PubMed: 8799138

Return to Top

Back to my Search

ATCC

ATCC Advanced Catalog Search » **Product Details**

Product Description

Before submitting an order you will be asked to read and accept the terms and conditions of ATCC's Material Transfer Agreement or, in certain cases, an MTA specified by the depositing institution.

Customers in Europe, Australia, Canada, China, Hong Kong, India, Israel, Japan, Korea, Macau, Mexico, New Zealand, Singapore, and Taiwan, R.O.C. must contact a local distributor for pricing information and to place an order for ATCC cultures and products.

Print this Page

Cell Biology

ATCC® Number: CCL-2™ Order this Item

Price: $256.00

Designations: HeLa

Depositors: WF Scherer

Biosafety Level: 2 [Cells contain human papilloma virus]

Shipped: frozen

Medium & Serum: See Propagation

Growth Properties: adherent

Organism: *Homo sapiens* (human)

Morphology: epithelial

Source:
Organ: cervix
Disease: adenocarcinoma
Cell Type: epithelial

Cellular Products: keratin
Lysophosphatidylcholine (lyso-PC) induces AP-1 activity and c-jun N-terminal kinase activity (JNK1) by a protein kinase C-independent pathway [26623]

Permits/Forms: In addition to the MTA mentioned above, other ATCC and/or regulatory permits may be required for the transfer of this ATCC material. Anyone purchasing ATCC material is ultimately responsible for obtaining the permits. Please click here for information regarding the specific requirements for shipment to your location.

Applications: transfection host ([21491] Nucleofection technology from Lonza
Roche FuGENE® Transfection Reagents)
screening for Escherichia coli strains with invasive potential [21447] [21491]

Virus Susceptibility:
Human adenovirus 3
Encephalomyocarditis virus
Human poliovirus 1
Human poliovirus 2
Human poliovirus 3

DNA Profile (STR):
Amelogenin: X
CSF1PO: 9,10
D13S317: 12,13.3
D16S539: 9,10
D5S818: 11,12
D7S820: 8,12
THO1: 7
TPOX: 8,12
vWA: 16,18

Related Links

NCBI Entrez Search

Cell Micrograph

Make a Deposit

Frequently Asked Questions

Material Transfer Agreement

Technical Support

Related Cell Culture Products

Login Required

Product Information Sheet

References:

21447: American Public Health Association. Compendium of methods for the microbiological examination of foods. 3rd ed.Washington, DC: American Public Health Association; 1992.
21491: AOAC International Invasiveness by Escherichia coli of mammalian cells, microbiological method. Gaithersburg, MD:AOAC International;AOAC "Official Methods of Analysis of the AOAC International" 982.36.
21626: Baldi A, et al. Genomic structure of the human retinoblastoma-related Rb2/p130 gene. Proc. Natl. Acad. Sci. USA 93: 4629-4632, 1996. PubMed: 8643454
22148: Gey GO, et al. Tissue culture studies of the proliferative capacity of cervical carcinoma and normal epithelium. Cancer Res. 12: 264-265, 1952.
22263: Chen TR. Re-evaluation of HeLa, HeLa S3, and HEp-2 karyotypes. Cytogenet. Cell Genet. 48: 19-24, 1988. PubMed: 3180844
22766: Boshart M, et al. A new type of papillomavirus DNA, its presence in genital cancer biopsies and in cell lines derived from cervical cancer. EMBO J. 3: 1151-1157, 1984. PubMed: 6329740
22767: Schneider-Gadicke A, Schwarz E. Different human cervical carcinoma cell lines show similar transcription patterns of human papillomavirus type 18 early genes. EMBO J. 5: 2285-2292, 1986. PubMed: 3023067
22919: Schwarz E, et al. Structure and transcription of human papillomavirus sequences in cervical carcinoma cells. Nature 314: 111-114, 1985. PubMed: 2983228
22995: Pater MM, Pater A. Human papillomavirus types 16 and 18 sequences in carcinoma cell lines of the cervix. Virology 145: 313-318, 1985. PubMed: 2992153
23180: Yee C, et al. Presence and expression of human papillomavirus sequences in human cervical carcinoma cell lines. Am. J. Pathol. 119: 361-366, 1985. PubMed: 2990217
23324: Scheffner M, et al. The state of the p53 and retinoblastoma genes in human cervical carcinoma cell lines. Proc. Natl. Acad. Sci. USA 88: 5523-5527, 1991. PubMed: 1648218
25915: Jones HW Jr., et al. George Otto Gey. (1899-1970). The HeLa cell and a reappraisal of its origin. Obstet. Gynecol. 38: 945-949, 1971. PubMed: 4942173
25919: Scherer WF, Hoogasian AF. Preservation at subzero temperatures of mouse fibroblasts (strain L) and human epithelial cells (strain HeLa). Proc. Soc. Exp. Biol. Med. 87: 480-487, 1954. PubMed: 13237281
25921: Scherer WF, et al. Studies on the propagation in vitro of poliomyelitis viruses. IV. Viral multiplication in a stable strain of human malignant epithelial cells (strain HeLa) derived from an epidermoid carcinoma of the cervix. J. Exp. Med. 97: 695-710, 1953. PubMed: 13052828
26623: Fang X, et al. Lysophosphatidylcholine stimulates activator protein 1 and the c-Jun N-terminal kinase activity. J. Biol. Chem. 272: 13683-13689, 1997. PubMed: 9153219
27094: Bruder JT, Kovesdi I. Adenovirus infection stimulates the Raf/MAPK signaling pathway and induces interleukin-8 expression. J. Virol. 71: 398-404, 1997. PubMed: 8985363
27345: Huber M, et al. Tyrosine phosphorylation events during coxsackievirus B3 replication. J. Virol. 71: 595-600, 1997. PubMed: 8985388
27814: Olson JK, et al. Varicella-zoster virus Fc receptor gE glycoprotein: serine/threonine and tyrosine phosphorylation of monomeric and dimeric forms. J. Virol. 71: 110-119, 1997. PubMed: 8985329
27819: Goodrum FD, Ornelles DA. The early region 1B 55-kilodalton oncoprotein of adenovirus relieves growth restrictions imposed on viral replication by the cell cycle. J. Virol. 71: 548-561, 1997. PubMed: 8985383
28301: Loffler S, et al. CD9, a tetraspan transmembrane protein, renders cells susceptible to canine distemper virus. J. Virol. 71: 42-49, 1997. PubMed: 8985321
29988: Hendricks DT, et al. FHIT gene expression in human ovarian, endometrial, and cervical cancer cell lines. Cancer Res. 57: 2112-2115, 1997. PubMed: 9187105
32244: Hoppe HC, et al. Identification of phosphatidylinositol mannoside as a mycobacterial adhesin mediating both direct and opsonic binding to nonphagocytic mammalian cells. Infect. Immun. 65: 3896-3905, 1997. PubMed: 9284169
32252: Rieder G, et al. Role of adherence in Interleukin-8 induction in Helicobacter pylori-associated gastritis. Infect. Immun. 65: 3622-3630, 1997. PubMed: 9284128
32299: St. Geme JW, et al. Characterization of the genetic locus encoding Haemophilus influenzae type b surface fibrils. J. Bacteriol. 178: 6281-6287, 1996. PubMed: 8892830
32348: Mansky LM. The mutation rate of human immunodeficiency virus type 1 is influenced by the vpr gene. Virology 222: 391-400,

THE UNIVERSITY OF WESTERN ONTARIO
BIOLOGICAL AGENTS REGISTRY FORM
Approved Biohazards Subcommittee: July 9, 2010
Biosafety Website: www.uwo.ca/humanresources/biosafety/

This form must be completed by each Principal Investigator holding a grant administered by the University of Western Ontario (UWO) or in charge of a laboratory/facility where the use of Level 1, 2 or 3 biological agents is described in the laboratory or animal work proposed. The form must also be completed if any work is proposed involving animals carrying zoonotic agents infectious to humans or involving plants, fungi, or insects that require Public Health Agency of Canada (PHAC) or Canadian Food Inspection Agency (CFIA) permits.

This form must be updated at least every 3 years or when there are changes to the biological agents being used.

Containment Levels will be established in accordance with Laboratory Biosafety Guidelines, 3rd edition, 2004, Public Health Agency of Canada (PHAC) or Containment Standards for Veterinary Facilities, 1st edition 1996, Canadian Food Inspection Agency (CFIA).

Completed forms are to be returned to Occupational Health and Safety, (OHS), (Support Services Building, Room 4190) for distribution to the Biohazards Subcommittee. For questions regarding this form, please contact the Biosafety Officer at extension 81135 or biosafety@uwo.ca. If there are changes to the information on this form (excluding grant title and funding agencies), contact Occupational Health and Safety for a modification form. See website: www.uwo.ca/humanresources/biosafety

PRINCIPAL INVESTIGATOR	**Dr Michael Strong**
DEPARTMENT	Molecular Brain Research Group/ Robarts Research Institute
ADDRESS	Room 3270 Robarts Research Institute
PHONE NUMBER	519-663-5777 x24452
EMERGENCY PHONE NUMBER(S)	Kathy Volkening 519-639-3802 or Cheryl Leystra-Lantz 519-452-1081
EMAIL	kmcdouga@uwo.ca lantz@robarts.ca

Location of experimental work to be carried out: Building(s) **Robarts Research Institute** Room(s) **3270**

*For work being performed at Institutions affiliated with the University of Western Ontario, the Safety Officer for the Institution where experiments will take place must sign the form prior to its being sent to the University of Western Ontario Biosafety Officer (See Section 15.0, Approvals).

FUNDING AGENCY/AGENCIES: **see Appendix A**
GRANT TITLE(S): _____

List all personnel working under Principal Investigators supervision in this location:

Name	UWO E-mail Address	Date of Biosafety Training
Kathryn Volkening	kmcdouga@uwo.ca	30-May-2007
Cheryl Leystra-Lantz	lantz@robarts.ca	12-Feb-2007
Wendy Strong	wstrong@robarts.ca	17-Oct-2007
Wencheng Yang	wyang@robarts.ca	15-Oct-2007
May Gohar	mgohar@robarts.ca	03-Oct-2007
Cristian Dropplemann	cdroppel@uwo.ca	27-Apr-2009
Danae Campos-Melo	dcampos@robarts.ca	18-May-2010
Zhong Ping He	zhe@robarts.ca	20-Jan-2009
Brian Keller	bakeller1@gmail.com	16-Sep-2009

Remainder of the form can be filled electronically.