

Modification Form for Permit BIO-UWO-0008

Permit Holder: Lina Dagnino

Approved Personnel

(Please stroke out any personnel to be removed)

Lylia Nini
David Judah
Ernest Ho
Timothy Irvine
Randeep Singh
Kerry-Ann Nakrieko
Linda Vi
Alena Rudkouskaya

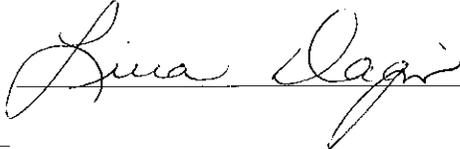
Additional Personnel

(Please list additional personnel here)

	Please stroke out any approved Biohazards to be removed below	Write additional Biohazards for approval below. *
Approved Microorganisms	E. Coli DH5 alpha	
Approved Cells	Human (primary), rodent (primary), human (established) HeLa, HEK 293, Rodent (established) NIH-3T3 fibroblasts. HEK 293Tcells, MEL-5 melanoma cells	
Approved Use of Human Source Material		
Approved GMO	Adenovirus, mPD2.G, psPAX2, pCAG-CRE:GFP	Lentivirus encoding siRNA against ELMOR2 protein vector
Approved use of Animals		
Approved Toxin(s)	Cholera toxin	

* 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 USED.

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: 

Classification: 2

Date of Last Biohazardous Agents Registry Form: Sep 24, 2007

Date of Last Modification (if applicable): Oct 26, 2009

BioSafety Officer(s): _____

Chair, Biohazards Subcommittee: _____

Comments:

- Plasmid vector to generate lentiviruses: pLKO.1 (obtained from Open Biosystems, Cat. RMM4534-NM-207705)
 - Packaging vector: pSPAX2
 - Envelope vector: pMD2G
- } Purchased from Adgene

----- Original Message -----

Subject: Re: Containment Level Request: Lentiviral vector work
Date: Mon, 16 Nov 2009 13:46:53 -0500
From: Geneviève Lacroix <genevieve.lacroix@phac-aspc.gc.ca>
To: Jennifer Stanley <jstanle2@uwo.ca>

Hi Jennifer,

Work with recombinant lentiviruses of this kind requires a containment level 2 laboratory with the use of containment level 3 operational practices.

Genevieve Lacroix, M.Sc.

Head, Importation and Biosafety Programs/ Chef, Importation et services de

biosécurité

Pathogen Regulation Directorate (formerly Office of Laboratory Security) /

Direction de la réglementation des agents pathogènes (anciennement le Bureau de sécurité des laboratoires)

Public Health Agency of Canada / Agence de la santé publique du Canada
100 ch. Colonnade Rd. AL: 6201A, Ottawa, Ontario, Canada, K1A 0K9

Tel: (613) 946-6982

Fax: (613) 941-0596

genevieve_lacroix@phac-aspc.gc.ca

<http://www.phac-aspc.gc.ca/ols-bsl/index.html>

Dear Jennifer:

Thank you for your reply and inspection list.

We are interested in producing replication-deficient lentiviruses that encode shRNAs for a protein called ELMO2. The viruses will express short RNA sequences that correspond to a region in the mRNA that encodes ELMO2. As a result, the cells will stop producing ELMO2. So, we will not introduce any new proteins or genes into the cells.

We want to be able to infect primary mouse keratinocytes with these viruses, so we can induced loss of ELMO2 in those cells. Once the cells are transduced with the viruses, we will prepare lysates to analyze patterns of protein expression, in a similar way we do now with our experiments using recombinant replication-deficient adenoviruses. We really want to go ahead with these studies.

In addition, please note that we will be moving out of SDRI Nov 12-13th, and will go to the HS addition rooms 202 and 218. I suspect you need to come and see the new set up? Do we need to do anything else?

Thank you for your help with all these issues.

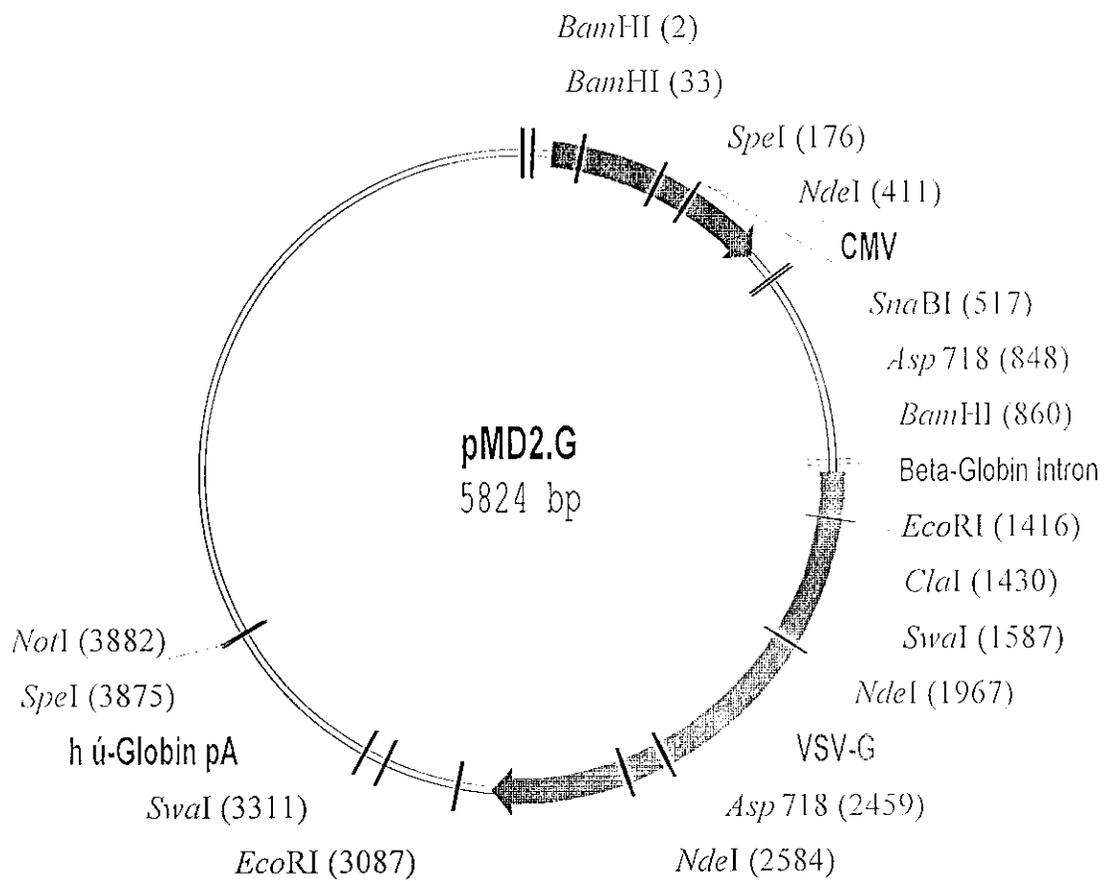
Regards,

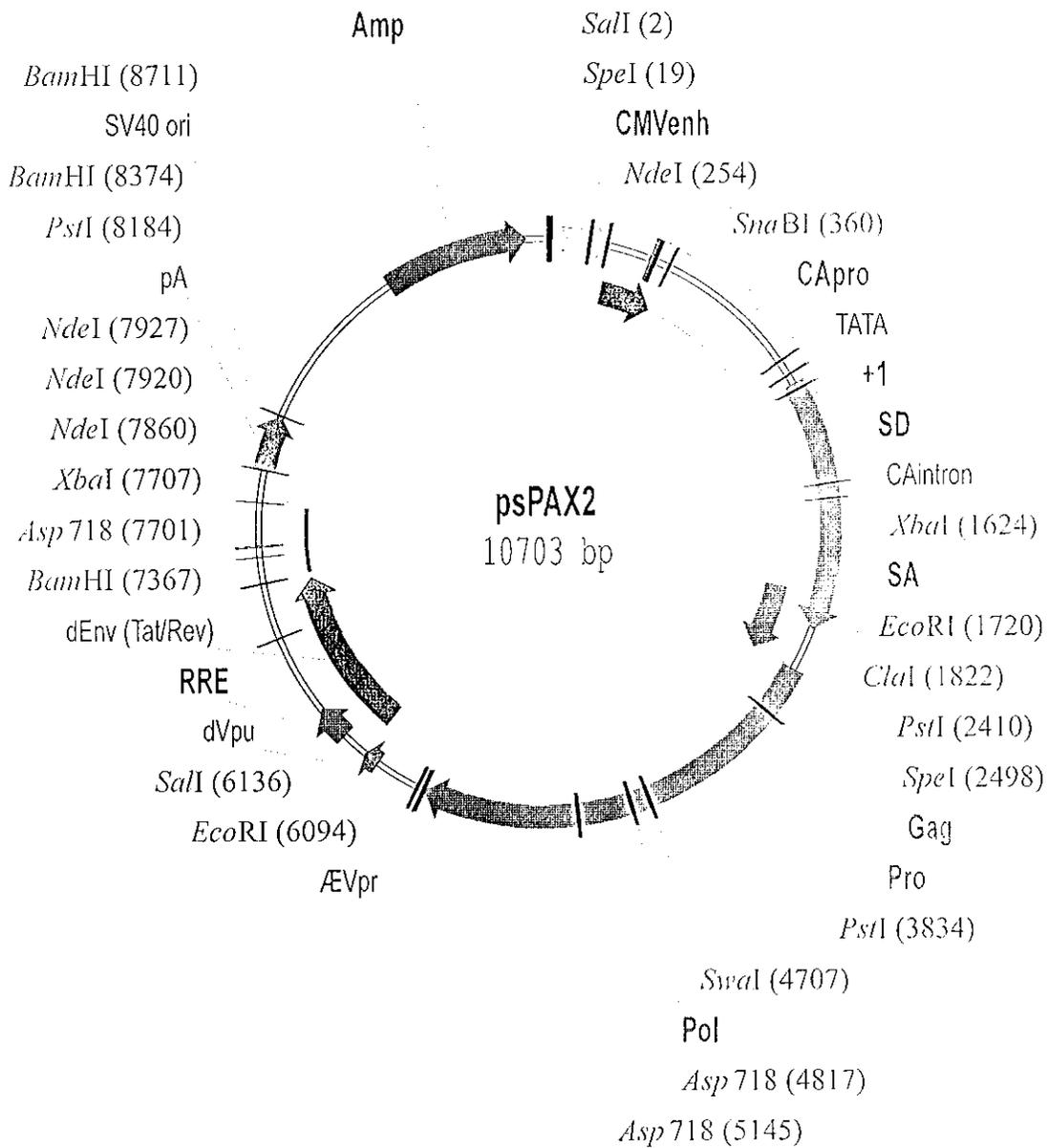
LD
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Material Safety Data Sheet
Trans-lentiviral Vector Particles

Section 1 - Chemical Product and Company Identification

MSDS Name:

Trans-lentiviral Vector Particles

Catalog Numbers:

IPS5422; IPS5423; IPS5424; IPS5425; IPS5426; IPS5427; IPS5428

Synonyms:

None Known.

Company Identification:

Open Biosystem Products
601 Genome Way, #2100
Huntsville, AL 35806

Company Phone Number:

303-604-9499

Emergency Phone Number:

703-527-3887

CHEMTREC Phone Number, US:

(800) 424-9300

CHEMTREC Phone Number, Europe:

(202) 483-7616

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent	EINECS/ ELINCS
Not available	Trans-lentiviral Vector Particles	100	Not available

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: Brown solid

Caution! May cause eye, skin, and respiratory tract irritation. Good laboratory procedures are recommended when handling this compound.

Target Organs: None known

Potential Health Effects

Eye:

May cause eye irritation.

Skin:

May cause skin irritation. May be harmful if absorbed through the skin.

Material Safety Data Sheet
Trans-lentiviral Vector Particles**Ingestion:**

May cause irritation of the digestive tract. May be harmful if swallowed.

Inhalation:

May cause respiratory tract irritation. May be harmful if inhaled.

Chronic:

No information found.

Section 4 - First Aid Measures**Eyes:**

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.

Skin:

Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.

Ingestion:

Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

Inhalation:

Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

Notes to Physician:

Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures**General Information:**

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media:

Use water spray, dry chemical, carbon dioxide, or chemical foam.

Autoignition Temperature:

Not available

Explosion Limits:

Lower: Not available Upper: Not available

Flash Point:

Not available

NFPA Rating:

(estimated) Health: 1; Flammability: 0; Instability: 0

Section 6 - Accidental Release Measures**General Information:**

Use proper personal protective equipment as indicated in Section 8.

Material Safety Data Sheet
Trans-lentiviral Vector Particles
Spills/Leaks:

Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal. Provide ventilation.

Section 7 - Handling and Storage
Handling:

Avoid breathing dust, mist, or vapor. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Use with adequate ventilation.

Storage:

Store in a tightly closed container. Store at -80°C.

Section 8 - Exposure Controls, Personal Protection
Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name:	ACGIH	NIOSH	OSHA
Trans-lentiviral Vector Particles	None listed	None listed	None listed

OSHA Vacated PELs**Personal Protective Equipment****Eyes:**

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Solid
 Color: Pink - brown
 Odor: No information found
 pH: No information found
 Vapor Pressure: No information found
 Vapor Density: No information found

Material Safety Data Sheet
Trans-lentiviral Vector Particles

Evaporation Rate: No information found
Viscosity: No information found
Boiling Point: No information found
Freezing/Melting Point: No information found
Decomposition Temperature: No information found
Solubility in water: No information found
Specific Gravity/Density: No information found
Molecular Formula: No information found
Molecular Weight: No information found

Section 10 - Stability and Reactivity**Chemical Stability:**

Stable.

Conditions to Avoid:

Incompatible materials, excess heat

Incompatibilities with Other Materials

None reported

Hazardous Decomposition Products

None

Hazardous Polymerization

Has not been reported

Section 11 - Toxicological Information**RTECS:**

No information found

LD50/LC50:

No information found

Carcinogenicity:

No information found

Epidemiology:

No information found

Teratogenicity:

No information found

Reproductive:

No information found

Mutagenicity:

No information found

Neurotoxicity:

No information found

Other:

The toxicological properties have not been fully investigated.

Material Safety Data Sheet
Trans-lentiviral Vector Particles**Section 12 - Ecological Information**

No information found

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Part 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P Series Wastes

None of the components are on this list.

RCRA U Series Wastes

None of the components are on this list.

Section 14 - Transport Information**US DOT****Canadian TDG**

Proper Shipping Name: Not regulated as hazardous material

No information found

Hazard Class:**UN Number:****Packing Group:****Section 15 - Regulatory Information****US Federal****TSCA**

Trans-lentiviral Vector Particles is not listed on the TSCA Inventory. It is for research and development use only.

Health and Safety Reporting List

None of the components are on this list.

Chemical Test Rules

None of the components are on this list.

TSCA Section 12b

None of the components are on this list.

TSCA Significant New Use Rule (SNUR)

None of the components are on this list.

CERCLA Hazardous Substances and corresponding RQs

None of the components are on this list.

Material Safety Data Sheet
Trans-lentiviral Vector Particles**SARA Section 302 Extremely Hazardous Substances**

None of the components are on this list.

SARA Hazard Categories

Not available

SARA Section 313

None of the components are on this list.

Clean Air Act - Hazardous Air Pollutants (HAPs)

None of the components are on this list.

Clean Air Act - Class 1 Ozone Depletors

None of the components are on this list.

Clean Air Act - Class 2 Ozone Depletors

None of the components are on this list.

Clean Water Act - Hazardous Substances

None of the components are on this list.

Clean Water Act - Priority Pollutants

None of the components are on this list.

Clean Water Act - Toxic Pollutants

None of the components are on this list.

OSHA - Highly Hazardous

None of the components are on this list.

OSHA - Specifically Regulated Chemicals

None of the components are on this list.

US State**State Right to Know**

No information found

California Prop 65

None of the components are on this list.

California No Significant Risk Level

None of the components are on this list.

European/International Regulations**European Labelling in Accordance with EC Directives:**

Hazard Symbols: None listed

Risk Phrases: None listed

Safety Phrases: S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)

No information found

United Kingdom Occupational Exposure Limits

No information found

United Kingdom Maximum Exposure Limits

No information found

Canadian DSL/NDSL

None of the chemicals in this product are listed on the DSL/NDSL list.

Material Safety Data Sheet
Trans-lentiviral Vector Particles**Canadian WHMIS Classifications**

No information found

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

No information found

Section 16 - Other Information

No information found

MSDS Creation Date: January 26, 2009

Revision Date: January 26, 2009

Revisions were made in Sections:

3, 4, 5, 6, 7, 8, 9, 10, 14

This MSDS is intended for review and guidance in the receipt, storage, handling, use and disposal of product purchased from us, and for no other purpose. Use this product only as directed and in accordance with applicable instructions and warnings provided with the product. Please consult your institution's policies regarding use of this product. If you have obtained this MSDS other than in connection with the supply of this product from us, this MSDS should be consulted for general information only, and should not be relied upon for any purpose. As with the use of all hazardous materials, you should in all instances follow the guidance of the MSDS provided or available with the specific product purchased.