

SAFETY DATA SHEET

Version 5.0 Revision Date September 1, 2020

1. IDENTIFICATION

Product Identification

Product Name Human Phospho-Caveolin-1 (Y14) and Total

Caveolin-1 Cell-Based ELISA

Catalog Number CBEL-Caveolin1-Y14

Kit Components

Usage

This product is furnished for LABORATORY RESEARCH USE ONLY. Not for diagnostic or therapeutic use.

Supplier Identification

Company RayBiotech, Inc.

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USA

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2. HAZARDS IDENTIFICATION

Hazardous Ingredients

- 1. The Stop Solution contains Sulfuric Acid.
- 2. The Fixing Solution contains 4% Formaldehyde solution.
- 3. The Quenching Buffer Concentrate contains 30% Hydrogen Peroxide.

OSHA/HCS status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture

Sulfuric Acid (Stop Solution): Skin Corr./Irrit. 1A (H314)

Formaldehyde solution (fixing solution): Acute toxicity (Category 4, Oral, H302), Skin Sensitisation (Category 1, H317), Germ cell mutagenicity (Category 2, H341), Carcinogenicity (Category 1B, H341)

Hydrogen Peroxide (quenching buffer): Acute toxicity, Oral (Category 4, H302), Skin corrosion (Category 1A,H314), Serious eye damage (Category 1, H318), Specific target organ toxicity - single exposure (Category 3, Respiratory system, H335), Short-term (acute) aquatic hazard (Category 2, H401), Long-term (chronic) aquatic hazard (Category 3, H412)

GHS Label Elements

Hazard Pictograms







Signal Word/s Warning

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Danger

Danger

Sulfuric Acid (Stop Solution): Causes skin irritation (H315); Causes serious eye irritation (H319)

Formaldehyde solution (fixing solution): May cause cancer (H350). Harmful if swallowed (H302). May cause an allergic skin reaction (H317). Suspected of

causing genetic defects (H341).

Hydrogen Peroxide (quenching buffer): MHarmful if swallowed (H302). Causes severe skin burns and eye damage (H314). May cause respiratory irritation (H335). Toxic to aquatic life (H401). Harmful to aquatic life with long

lasting effects (H412).

IF SWALLOWED: Call a POISON CENTER or doctor/ physician if you feel

unwell. Rinse mouth.

EYE CONTACT: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing.

SKIN CONTACT: Take off immediately all contaminated clothing. Rinse skin

with water/shower.

INHALATION: Move to an outside area and breath fresh air. Clear the nose by

blowing.

Storage Not applicable.

Disposal Not applicable.

Hazards not otherwise classified

None known.

Response

Hazard Statements

3. COMPOSITION/INFORMATION ON INGREDIENTS

CAS Numbers/other identifiers

Ingredient Name	<u>%</u>	CAS Number
Sulfuric Acid	0.2	7664-93-9
Formaldehyde solution	4	50-00-0
Hydrogen Peroxide	30	7722-84-1

4. FIRST-AID MEASURES

Description of Necessary First Aid Measures

Eye Contact	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
Skin Contact	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing and clean shoes before reuse.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it issuspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Ingestion	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Potential Acute Health Effects

Sulfuric Acid (Stop Solution): Causes serious eye **Eye Contact**

damage (H319)

Sulfuric Acid (Stop Solution): Causes skin irritation Skin Contact

(H315)

Over-Exposure Signs/Symptoms

No specific data.

Notes to Physician

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific Treatments

No specific treatment

Protection of First-Aiders

No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

5. **FIRE FIGHTING MEASURES**

Use an extiguishing agent suitable for the surrounding fire, such as water Extinguishing Media

spray, carbon dioxide, dry chemical power or appropriate foam. Prevent

contact with skin and eyes.

In a fire or if heated, a pressure increase will occur and the component Chemical Hazards from Fire

containers may burst.

6. **ACCIDENTAL RELEASE MEASURES**

Personal Precautions, Protective Equipment and Emergency Procedures

For Non- Emergency Personnel	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.	
For Emergency Responders	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For Non-Emergency Personnel" above.	
Environmental Precautions	Il sewers. Inform the relevant authorities if the product has caused environmental pollution	
Protective Equipment	II Wear respirator, chemical satety goodles, rubber boots and rubber gloves	

Methods and Materials for Containment and Cleaning Up

Small Spill	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up ifwater-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
Large Spill	Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7. STORAGE AND HANDLING

Storage

Store the entire kit frozen at -20°C upon arrival.

Handling

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Permissible Exposure Limits (PELs)

This product does not contain any hazardous materials with occupational exposure limits established by theregion specific regulatory bodies.

Appropriate Engineering Controls

Showers Eyewash stations Ventilation systems

Protective Equipment

Wear suitable protective clothing, including gloves, safety glasses, dust mask, and a laboratory coat.

Special Precautions

9. PHYSICAL AND CHEMICAL PROPERTIES

Clear, colorless Appearance Odor Odorless **Physical State** Liquid pΗ N/A **Boiling Point** N/A Melting Point N/A N/A Freezing Point N/A Vapor Pressure Vapor Density N/A Specific Gravity N/A **Evaporation Rate** N/A Solubility in Water N/A Odor Threshold N/A

10. STABILITY AND REACTIVITY

Coefficient of Water/Oil Distribution N/A

Chemical Stability Stable under normal handling procedures.

Hazardous Reactions Under normal conditions of storage and use, hazardous reactions will not

occur.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Ingredient Name	Result	Species	Dose
Sulfuric Acid	LD50	Oral rat Inhalation rat	347 ppm 2140 mg/kg
Formaldehyde	LD50	Oral rat Inhalation rat Skin rabbit Draize test, rabbit, eye	100 mg/kg 64000 ppm/4H 270 uL/kg 750 ug/24H Severe
Hydrogen Peroxide	LD50	Oral rat Inhalation rat Skin rat	1518 mg/kg 2 gm/m3/4H 3 gm/kg

CAS# 50-00-0:

ACGIH: A2 - Suspected Human Carcinogen California: carcinogen; initial date 1/1/88

Carcinogenicity NIOSH: occupational carcinogen

NTP: Suspect carcinogen

OSHA: Possible Select carcinogen CAS# 7722-84-1:

IARC: Group 3 carcinogen

SensitizationNot AvailableMutagenicityNot availableReproductive ToxicityNot AvailableSpecific target organ toxicity

(single exposure)

Not available

Specific target organ toxicity

(repeated exposure)

Not available

Aspiration hazard

Not available

Likely routes of exposure

Routes of entry anticipated: Oral, Dermal, Inhalation.

Potential acute health effects

Formaldehyde solution (fixing solution): Eye irritant. Eye contact

Hydrogen Peroxide (quenching buffer): May cause severe eye damage.

Inhalation Sulphuric Acid (stop solution): Harmful if inhaled.

Hydrogen Peroxide (quenching buffer): May be harmful if inhaled.

Ingestion Formaldehyde solution (fixing solution): Risk of serious damage if swallowed.

Hydrogen Peroxide (quenching buffer): Harmful if swallowed.

Skin Contact Formaldehyde solution (fixing solution): Skin irritant.

Hydrogen Peroxide (quenching buffer): Causes severe skin burns

ECOLOGICAL INFORMATION 12.

> **Ecotoxicity** No data available Persistence and degradability No data available Bioaccumulation/accumulation No data available Mobility in environmental media No data available

Other hazardous effects May be harmful to the environment, particularly aquatic organisms.

13. **DISPOSAL CONSIDERATIONS**

> Disposal should be in accordance with applicable national, state, and local laws and regulations. Local regulations may be more stringent than national or state requirements. Verify local and state regulations before discharging into public sewers or landfills. Do not dump into any body of water. Contact a licensed professional waste disposal service for appropriate methods of

disposal.

TRANSPORT INFORMATION 14.

Disposal methods

DOT Not dangerous goods. **IATA** Not dangerous goods. ADR Not dangerous goods.

REGULATORY INFORMATION 15.

SARA 313 Components

United States (TSCA) All ingredients are on the inventory or exempt from listing. Canada (DSL / NDSL) All ingredients are on the inventory or exempt from listing.

Sulfuric Acid (Stop Solution): CAS 7664-93-9 Formaldehyde solution (fixing **SARA 302 Components**

solution): 50-00-0 Hydrogen Peroxide (quenching buffer): 7722-84-1

Sulfuric Acid (Stop Solution): Concentration <3% Formaldehyde solution (fixing solution): Concentration <5% Hydrogen Peroxide (quenching buffer):

Concentration <5%

Sulfuric Acid (Stop Solution): Health hazard - Skin corrosion or Irritation SARA 311/312 Hazards

Health hazard - Serious eye damage or eye irritation

Sulfuric Acid (Stop Solution): WARNING: This product contains a chemical California Prop. 65 Components

known to the State of California to cause cancer.

16. OTHER INFORMATION Disclaimer

The above information was obtained from sources available at the time of revision and believed to be accurate and reliable. The information included is not intended to be all inclusive and should only be used as a guide. RayBiotech shall not be held liable for any damage resulting from use, handling, or contact with the above product.

September 1, 2020

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Last Revised