
1. IDENTIFICATION

Product Identification

Product Name Human Mitochondrial DNA Damage Quantification qPCR Assay Kit

Catalog Number MTH-DQ-100

Usage

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

Supplier Identification

Company RayBiotech Life, Inc.
3607 Parkway Lane, Suite 200
Peachtree Corners, GA 30092
USA

Telephone 1-888-494-8555 (Toll Free); 770-729-2992

Fax 770-206-2393

Website www.RayBiotech.com

Email info@raybiotech.com

Emergency Telephone Number

Emergency Phone # 1-888-494-8555

2. HAZARDS IDENTIFICATION

Hazardous Ingredients

There are no hazardous components in this product.

OSHA/HCS status

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Classification of the substance or mixture

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

GHS Label Elements

Hazard Pictograms Not applicable.

Signal Word Not applicable.

Hazard Statements Not applicable.

Prevention Not applicable.
Response Not applicable.
Storage Not applicable.
Disposal Not applicable.

Hazards not otherwise classified

None known.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture Item A is substance. All other items are mixture.

Other means of identification Not available

CAS Numbers/other identifiers

<u>Ingredient Name</u>	<u>%</u>	<u>CAS Number</u>
Potassium Chloride (PCR Reaction solution)	1-5	7447-40-7

Any percentage shown as a range is to protect confidentiality or is due to batch variation.

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

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 is suspected 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.
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Potential Acute Health Effects

Eye Contact	No known significant effects or critical hazards.
Skin Contact	No known significant effects or critical hazards.
Inhalation	No known significant effects or critical hazards.
Ingestion	No known significant effects or critical hazards.

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

Extinguishing Media	Use an extinguishing agent suitable for the surrounding fire, such as water spray, carbon dioxide, dry chemical power or appropriate foam. Prevent contact with skin and eyes.
Chemical Hazards from Fire	In a fire or if heated, a pressure increase will occur, and the component 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.
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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	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Protective Equipment	Wear respirator, chemical safety goggles, rubber boots and rubber gloves.

Methods and Materials for Containment and Clean Up

Small Spill	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-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

May be stored for up to 1 week at 2° to 8°C from the date of shipment. Opened Microplate Wells or reagents may be store for up to 1 month at 2° to 8°C. Return unused wells to the pouch containing desiccant pack, reseal along entire edge. Reconstituted standard can be stored at -80°C for up to 1 month. Note: the kit can be used within one year if the whole kit is stored at -20°C. Avoid repeated freeze-thaw cycles.

Handling

Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. Keep away from incompatible materials (see Section 10) and food and drink.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Permissible Exposure Limits (PELs)

There are no ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

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

Not for human or drug use. Not for household use.

9. PHYSICAL AND CHEMICAL PROPERTIES (PCR Reaction solution)

Appearance	Blue
Odor	Odorless
Physical State	Liquid
pH	8.3
Boiling Point	N/A
Melting Point	N/A
Freezing Point	N/A
Vapor Pressure	N/A
Vapor Density	N/A
Specific Gravity	N/A
Evaporation Rate	N/A
Solubility in Water	N/A
Odor Threshold	N/A
Coefficient of Water/Oil Distribution	N/A

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal handling procedures.
Hazardous Reactions	Under normal conditions of storage and use, hazardous reactions will not occur.

11. TOXICOLOGICAL INFORMATION (PCR Reaction solution)

Acute toxicity

The following values are calculated based on chapter 3.1 of the GHS document:

ATEmix (oral): 75,452.20 mg/kg
 ATEmix (dermal) 95,412.80 mg/kg

Unknown acute toxicity

13.3274 % of the mixture consists of ingredient(s) of unknown toxicity
 1.075 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
 2.3274 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
 13.3274 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
 13.3274 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor) 13.3274 %
 of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Ingredient Name	Species	Oral LD50	Dermal LD50	Inhalation LD50
Potassium Chloride 7447-40-7	Rat	= 2600 mg/kg	-	-

Corrosion/Irritation Not Available
Sensitization Not Available
Mutagenicity Not Available
Reproductive Toxicity Not Available
Specific target organ toxicity (single exposure) Not available
Specific target organ toxicity (repeated exposure) Not available
Aspiration hazard Not available
Likely routes of exposure Not available
Potential acute health effects
Eye contact Not available
Inhalation Not available
Ingestion Not available
Skin Contact Not available

12. ECOLOGICAL INFORMATION

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 methods

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 state regulations before discharging into public sewers or landfills. Do not dump into a water body. Contact a licensed professional waste disposal service for appropriate methods of disposal.

14. TRANSPORT INFORMATION

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

15. REGULATORY INFORMATION

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.
Europe	In accordance with Regulation (EC) No. 1907/2006 of the European Parliament and the Council (REACH) and Commission Regulation (EU) No. 830/2015.
SARA 313 Components	Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986. This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.
SARA 311/312 Hazards	Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to the relevant section of this SDS for appropriate classifications.
California Prop. 65 Components	This product does not contain any Proposition 65 chemicals.

16. Disclaimer

Last Revised	October 21st, 2024
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This product is for research use only.



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