



Safety Data Sheet

Section 1 – Product and Company Identification

Product Name: HHV-6 IgG Antibody ELISA Kit
Catalog Number: 15-401-000
Intended Use: Advanced Biotechnologies Inc’s (ABI) indirect Enzyme-Linked Immuno Sorbent Assay (ELISA) for Human Herpesvirus-6 IgG antibody detects HHV-6 IgG specific antibodies in human serum or plasma. The test is intended as an aid in the detection of reactivation/reinfection or persistent infection with HHV-6, and can provide serological evidence of previous HHV-6 infection.
Manufacturer: Advanced Biotechnologies Inc
Address: 1545 Progress Way
Eldersburg, MD 21784
Telephone: (410) 792-9779
Fax: (301) 497-9773
Website: www.abionline.com


Section 2 – Hazard Identification

I. Biohazards



Human Plasma	Category: N/A. Note: The human plasma controls in this kit have been tested as negative for HBsAg, HIV-1 antigen, and for antibodies to HIV-1, HIV-2 and HCV. However, no test system can ensure the absence of viral antigens. Therefore, handle all human plasma components as potentially biohazardous. Use proper personal protective equipment, appropriate biosafety level laboratory according to the <i>Biosafety in Microbiological and Biomedical Laboratories manual</i> . The local, regional, national and international regulations should be observed when disposing these components.
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II. Chemical Hazards

<p>1N H₂SO₄ Sulfuric acid (Stop Solution)</p>	<p>CAS Number: 7664-93-9, pH ≤ 2, Category 1 - GHS</p> <p>Signal Word: Warning!</p> <p>Labels: </p> <p>Emergency Overview: Irritant</p> <p>Routes of Entry: Skin contact, Eye contact, Inhalation, Ingestion</p> <p>Potential Acute Health Effects</p> <p>Eyes: Severely irritating to eyes. Risk of serious damage to eyes.</p> <p>Skin: Severely irritating to skin.</p> <p>Ingestion: May cause discomfort if swallowed.</p> <p>Inhalation: May cause mild irritation.</p> <p>Potential Chronic Health Effects</p> <p>Chronic Effects: Contains material that can cause target organ damage.</p> <p>Mutagenicity: No known significant effects or critical hazards.</p> <p>Teratogenicity: No known significant effects or critical hazards.</p> <p>Developmental Effects: No known significant effects or critical hazards.</p> <p>Fertility Effects: No known significant effects or critical hazards.</p> <p>Target Organs: Contains material which causes damage to the following organs: eye, lens or cornea. Contains material which may cause damage to the following organs: blood, kidneys, lungs, liver, mucous membranes, upper respiratory tract, skin, teeth, testes.</p> <p>Over-exposure signs/symptoms</p> <p>Eyes: Adverse symptoms may include the following: pain or irritation, watering, redness.</p> <p>Skin: Adverse symptoms may include the following: irritation, redness.</p> <p>Ingestion: No specific data.</p> <p>Inhalation: Adverse symptoms may include the following: respiratory tract irritation, coughing.</p> <p>Medical Conditions Generally Aggravated by Exposure: Pre-existing disorders involving any target organs mentioned in this SDS as being at risk may be aggravated by over-exposure to this product.</p>
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<p>0.01% - 0.2% C₉H₉HgNaO₂S Thimerosal</p> <p>(Preservatives used for multiple kit components, see section 3 for details)</p>	<p>CAS Number: 54-64-8, Category 1 - GHS</p> <p>Signal Word: Warning (0.01%), Danger (0.2%)</p> <p style="text-align: center;">   </p> <p>Labels:</p> <p>Emergency Overview: Toxic</p> <p>Precautionary Statement: The kit components that contain thimerosal are less than 1% and are presumed to be not acutely toxic. Although the components containing 0.01% - 0.2% thimerosal have not been tested for oral acute toxicity hazard classification, they are well below the GHS LD50 at ≤ 5 mg, thus falling into Category 1. Careful handling and storing of these components are crucial and all the thimerosal containing components must be treated as potential health hazards.</p> <p>Routes of Entry: Skin contact, Eye contact, Inhalation, Ingestion</p> <p>Potential Acute Health Effects</p> <p>Eyes: Slightly irritating to eyes.</p> <p>Skin: Harmful in contact with skin. May cause an allergic reaction.</p> <p>Ingestion: Toxic if swallowed.</p> <p>Inhalation: May cause irritation.</p> <p>Potential Chronic Health Effects</p> <p>Chronic Effects: Contains mercury that can cause mercury poisoning when overexposed.</p> <p>Mutagenicity: Mutagenic for mammalian somatic cells.</p> <p>Teratogenicity: No known significant effects or critical hazards.</p> <p>Developmental Effects: Exposure to mercury in utero and in children may cause mild to severe mental retardation and mild to severe motor coordination impairment.</p> <p>Fertility Effects: Suspected of damaging fertility or the unborn child.</p> <p>Target Organs: The substance may be toxic to kidneys, liver, spleen, bone marrow, central nervous system (CNS).</p> <p>Over-exposure signs/symptoms</p> <p>Eyes: Irritation.</p> <p>Skin: Allergic reaction or irritation.</p> <p>Ingestion: If ingested call poison control center immediately or doctor/physician.</p> <p>Medical Conditions Generally Aggravated by Exposure: Pre-existing disorders involving any target organs mentioned in this SDS as being at risk may be aggravated by over-exposure to this product.</p>
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Section 3 – Composition/Information on Ingredients

Note: Only ingredient present at a concentration considered hazardous is sulfuric acid (1-3%). For all other chemicals, there are no known health hazards present in concentrations > 1% and there are no known carcinogens present in concentrations > 0.1%.

Name: 1N Sulfuric Acid, 2.7% (Stop Solution) **CAS Number:** 7664-93-9

Name: Thimerosal, 0.01%-0.2% **CAS Number:** 54-64-8

Thimerosal containing components include:

20X Wash Buffer (0.2% Thimerosal), Specimen Diluent (0.01% Thimerosal), Conjugate Component A (0.01% Thimerosal), Conjugate Component B (0.01% Thimerosal), Positive Control Plasma (0.01% Thimerosal), and Negative Control Plasma (0.01% Thimerosal)

Name: HHV-6 Antigen-Coated ELISA Plate **CAS Number:** N/A

Name: Positive Control Plasma (Human Plasma) **CAS Number:** N/A

Name: Negative Control Plasma (Human Plasma) **CAS Number:** N/A

Name: Tween-20 **CAS Number:** 9005-64-5

Name: Sodium Phosphate, Monobasic **CAS Number:** 10049-21-5

Name: Potassium Phosphate, Dibasic **CAS Number:** 7758-11-4

Name: 3,3',5,5'-Tetramethylbenzidine (TMB) **CAS Number:** 54827-17-7

Name: Dulbecco's Phosphate Buffered Saline (DPBS):

Sodium Phosphate, Dibasic **CAS Number:** 7558-79-4

Potassium Phosphate, Monobasic **CAS Number:** 7778-77-0

Sodium Chloride **CAS Number:** 7647-14-5

Potassium Chloride **CAS Number:** 7447-40-7

Section 4 – First Aid Measures

Eye Contact: Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.



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Skin Contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

Inhalation: Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Ingestion: Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Notes to First-Aid Providers: 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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

Notes to Physician: No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Section 5 – Fire-Fighting Measures

Flammability of the Product: Data not known. Most of the chemicals are water based and are not to be expected as fire hazards however some of the packaging themselves may ignite when exposed to fire.

Extinguishing Media

Suitable: Use an extinguishing agent suitable for the surrounding fire.

Not Suitable: None known.

Special Fire Firefighting Procedures: Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Hazardous Decomposition Products: Decomposition products may include the following materials: sulfur dioxide.

Section 6 – Accidental Release Measures

Accidental Release Measures: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do



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not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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.

Spill Containment: 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.

Section 7 – Handling and Storage

Handling: Put on appropriate personal protective equipment. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Avoid exposure - obtain special instructions before use. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. 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.

Storage: Store between 2-8°C. Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8 – Exposure Controls/Personal Protection

Permissible Exposure Limit (PEL):

Sulfuric Acid: TWA 1 mg/m³ (OSHA PEL & NIOSH PEL)

Thimerosal: TWA 0.1 mg/m³ (OSHA PEL), TWA 0.05 mg/m³ (NIOSH PEL)

Personal Protection Measures:



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Ventilation: Work in a biosafety cabinet, fume hood or use local exhaust ventilation. Wear appropriate respirator when ventilation is inadequate.

Respiratory Protection: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

Eye Protection: Where the potential for eye contact exists, splash-proof goggles or a face shield must be worn.

Skin Protection: Wear chemical-resistant, impervious gloves.

Other Protective Clothing or Equipment: Wear personal protective equipment appropriate to the quantity of material handled.

Section 9 – Physical and Chemical Properties

pH: Most of the liquid chemical components are between pH 6-pH8, except Stop Solution is at $\text{pH} \leq 2$ and Conjugate Substrate (TMB) is between pH 3.3 - 3.8.

Appearance: Variable aqueous liquids.

Odor: Odorless.

Physical State: Liquid.

Section 10 – Stability and Reactivity

All components are stable with no known reactivity, with the exception of the acidic stop solution, which may have an exothermic reaction with strong bases and reducing agents.

Stability: Stable under normal conditions of use.

Conditions to avoid: Store away from reactive materials.

Materials to avoid: No specific data.

Hazardous Decomposition or By-Products: Under normal storage conditions, hazardous decomposition products should not be produced.

Section 11 – Toxicological Information

LD50: Unknown.

LC50: Unknown.



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Eyes: Severely irritating to eyes. Risk of serious damage to eyes.

Skin: Severely irritating to skin.

Ingestion: May cause discomfort if swallowed.

Inhalation: May cause mild irritation.

Toxicity: Thimerosal is a mercury based compound; prolonged or repeated exposure may induce allergic reactions to susceptible individuals.

Carcinogenicity: Unknown

Section 12 – Ecological Information

Ecological Information: Avoid release to the environment. Prevent contamination of soil, drains or surface water, use appropriate containment method to avoid environmental contamination.

Section 13 – Disposal Considerations

Disposal Methods: Dispose of in accordance with existing federal, state, and local regulations. Dispose of via a licensed waste disposal contractor.

Section 14 – Transport Information

D.O.T.: Class 8: Corrosive material

Proper Shipping Name: Sulfuric acid with 51% or less acid, UN2796, PG II

IATA: Class 8: Corrosive material

Proper Shipping Name: Sulfuric acid with 51% or less acid, UN2796, PG II

Section 15 – Regulatory Information

U.S Federal Regulations

SARA 302/304/311/312 Extremely Hazardous Substances: Sulfuric Acid

SARA 313: Sulfuric Acid, 1-3%

California Proposition 65: This product contains a chemical known to the State of California to cause cancer: Sulfuric Acid



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Canada

WHMIS Classification: Class E, Class D2A

European Union:

EU Directive 67/548/EEC Risk Phrase: R36, R38

Section 16 – Other Information

The above information is believed to be accurate but does not claim to be all inclusive and shall be used only as a guide. Advanced Biotechnologies Inc shall not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we can not guarantee that these are the only hazards that exist.

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