

## Material Safety Data Sheet (MSDS) ELISA Kit

### I. Identification

**Product name:** GDF5 ELISA Kit (Human)

**Catalog number:** OKEH00518

**Manufacturer/Supplier:**

Aviva Systems Biology Corporation

**Address:**

5754 Pacific Center Blvd, Suite 201

San Diego, CA 92121

(858) 552-6979

**Web:** [www.avivasysbio.com](http://www.avivasysbio.com)

### II. Composition, Information on Ingredients

**Reagents:** Kit reagents are not considered to be hazardous. They are mixtures that contain less than 1% hazardous chemicals and less than 0.1% carcinogenic chemicals.

**Antibody coated microwells:** Anti-GDF5 antibody.

**Biotinylated GDF5 Detector Antibody (120 ul):**

Detection Antibody; 50% glycerol (CAS# 56-81-5).

**Avidin-HRP Conjugate (120 ul):** HRP-linked Avidin, 50% glycerol (CAS# 56-81-5).

**25X Wash Buffer (30 ml):** 1% tween-20 (CAS# 9005-64-5), 0.33% Thymol (CAS# 89-83-8), in 25X TBS.

**Sample Diluent (20 ml):** 0.1% Tween-20 (CAS#9005-64-5), Mixture of 5-Chloro-2-methyl-4-isothiazolin-3-one and 2-Methyl-2H-isothiazol-3-one (3:1) (CAS# 559965-84-9) in TBS.

**TMB Substrate (10 ml):** 0.05% 3,3',5,5' tetramethylbenzidine (CAS# 54827-17-7).

**Stop Solution (10 ml):** 1mol/L H<sub>2</sub>SO<sub>4</sub> (CAS# 7664-93-9)

**Reference Standard (2 vials):** Recombinant protein, in a buffer with preservatives, lyophilized.

**Detector Antibody Diluent (12 ml):** 1×TBS with 1% BSA (CAS# 9048-46-8) and Mixture of 5-Chloro-2-methyl-4-isothiazolin-3-one and 2-Methyl-2H-isothiazol-3-one (3:1) (CAS# 55965-84-9).

**Conjugate Diluent (12 ml):** 1×TBS with 1% BSA (CAS# 9048-46-8) and Mixture of 5-Chloro-2-methyl-4-isothiazolin-3-one and 2-Methyl-2H-isothiazol-3-one (3:1) (CAS# 55965-84-9).

### III. Health Hazard Data

**Emergency overview:** No specific hazard.

**HMIS rating:**

Health: 0 Flammability: 0 Reactivity: 0

**NFPA rating:**

Health: 0 Flammability: 0 Reactivity: 0

**Routes of entry:** Avoid ingestion and inhalation, avoid contact with skin, eyes.

**Threshold Limit Value (TLV) and source:** Data N/A. To the best of our knowledge, the chemical, physical, and toxicological properties of the components of this kit have not been thoroughly investigated.

**Potential acute health effects:** May cause skin, eye, or lung irritation. To the best of our knowledge, the chemical, physical, and toxicological properties of the components of this kit have not been thoroughly investigated. Allergy-prone individuals should be particularly cautious with proteins or other materials of biologic origin.

**Carcinogenic effects data:** N/A

**Chronic effects of overexposure:** N/A

**Vapor pressure (mm Hg):** N/A

**Solubility in water:** Liquids readily miscible in water.

### IV. Emergency and First Aid Procedures

First aid personnel should ensure self-protection.

**Swallowing:** If any component of this kit is swallowed, wash mouth out with water, provided person is conscious.

Get medical attention.

**Skin:** If any component of this kit contacts the skin, immediately wash skin with soap and copious amounts of water.

**Inhalation:** If any component of this kit is inhaled, remove to fresh air. If not breathing, perform CPR and get immediate medical attention.

**Eyes:** If any component of this contacts the eyes, flush the eyes with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating eyelids with fingers. Consult a physician.

## V. Fire and Explosion Hazard Data

**Flammability:** May be combustible at high temperature.

**Flash points:** N/A

**Extinguishing media:** Use dry chemical.

**Special fire-fighting procedures:** Wear NIOSH/MSHA approved self-contained breathing apparatus and protective clothing.

**Unusual fire and explosion hazards:** None known.

## VI. Accidental Release Measures

Use appropriate protective equipment and methods to clean up spilled substances promptly. Collect and dispose of all waste in accordance with applicable laws.

## VII. Handling and Storage

Material may be air sensitive. Desiccation recommended.

The Standard, Detector Antibody, Conjugate and the 96-well strip plate should be stored at -20 upon being received. The other reagents can be stored at 4.

## VIII. Exposure Controls / Personal Protection

Wear appropriate gloves, protective clothing and eyewear and follow safe laboratory practices.

**ACGIH/OSHA Permissible Exposure Limit Data:** Not determined

## IX. Physical Data

### Antibody coated micro-wells:

Physical state and appearance: Solid (micro-wells)

Solubility in water: Partially soluble

Biotinylated Detector Antibody, Avidin-HRP Conjugate

Standard Diluent:

Physical state: Solutions

Boiling point: Decomposes

Vapor Pressure: N/A

Vapor density: N/A

Specific gravity: N/A

Melting point: N/A

Evaporation rate: N/A

Solubility in water: Solutions are dilutable

### 25X wash buffer, TMB substrate, stop solution:

Physical state and appearance: Clear solutions

Boiling point: Decomposes

Vapor Pressure: N/A

Vapor density: N/A

Specific gravity: N/A

Melting point: N/A

Evaporation rate: N/A

Solubility in water: Solutions are dilutable

## X. Stability/Reactivity

**Stability and Reactivity:** The product is stable.

**Conditions to avoid:** N/A

**Materials to avoid:** N/A

**Hazardous decomposition products:** N/A

## XI. Toxicological Information

**Irritability:** N/A

**Mutagenicity:** N/A

**Reproduction toxicity:** N/A

**Other toxic effects on humans:** May cause slight irritation in case of eye contact, inhalation or ingestion.

## XII. Ecological Information

Do not allow product to reach ground water, water course, or sewage system.

## XIII. Disposal Considerations

Consult local, state or national regulations for proper disposal.

## XIV. Transportation information

Overland transportation (ADR/RID): As a mixture, the substance is subject to no limitations.

Transatlantic transportation (IMDG): As a mixture, the substance is subject to no limitations.

Air transportation (ICAO/IATA): As a mixture, the substance is subject to no limitations.

## **XV. Regulatory information**

Observe the general safety regulations when handling chemicals. No component contains a hazardous ingredient in an amount that requires identification and labeling.

## **XVI. Other information**

This material is sold for in vitro use or research purposes only. It is not for any human or animal therapeutic or clinical diagnostic use.

Read instructions for use before using the products. Observe the general safety regulations when handling chemicals. Good laboratory practice is the best preventive measure to avoid hazards. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may be present unknown hazards and should be used with caution. Since our corporation cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein.

This information is prepared on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Revision Date: Sep. 30, 2011**