



## Material Safety Data Sheet

Revision Date: 02-14-2017

**Kit Name:** 1-step Anti-Rat Polymer-Based IHC Kit (100 Slides)  
**SKU#:** VB-6027

**Components:**

VB-6027-1	RTU normal horse serum
VB-6027-2	RTU polymeric peroxidase anti-rat secondary antibody

## VB-6027 RTU normal horse serum MSDS

### 1. Identification of the Substance/Mixture and Company

<b>Product Name</b>	RTU normal horse serum
<b>Catalog#</b>	VB-6027-1
<b>Product Description</b>	Component
<b>Manufacturer/Supplier</b>	VitroVivo Biotech, LLC. 405 E Gude Dr., Suite 214, Rockville, MD 20850
<b>Tel/fax Number</b>	Phone: 301-500-0499; Toll free: 1-800-260-9817 Fax: 844-248-6208

### 2. Hazards Identification

#### GHS Classification

<b>Signal Word</b>	None
<b>Hazard pictograms</b>	None
<b>Health hazards</b>	Not Hazardous
<b>Environmental hazards</b>	Not Hazardous
<b>Hazard Statements</b>	Not Applicable

#### Precautionary Statements

<b>Prevention</b>	Not Applicable
<b>Response</b>	Not Applicable
<b>Storage</b>	Not Applicable
<b>Disposal</b>	Not Applicable
<b>Other hazards</b>	Not Applicable

### 3. Composition/information on ingredients

The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

### 4. First Aid Measures

#### Description of first aid measures

<b>Skin contact</b>	Rinse skin with water. Immediate medical attention is not required.
<b>Eye contact</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
<b>Ingestion</b>	Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice.
<b>Inhalation</b>	Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary.
<b>Notes to Physician</b>	Treat symptomatically.

#### **Most important symptoms and effects, both acute and delayed**

Not Applicable

#### **Indication of any immediate medical attention and special treatment needed**

None.

### 5. Firefighting Measures

#### Extinguishing media

Suitable extinguishing media	Water spray. Carbon dioxide (CO <sub>2</sub> ). Foam. Dry chemical.
Unsuitable extinguishing media	No information available.

#### **Special hazards arising from the substance or mixture**

Not known

#### **Protective equipment and precautions for firefighters**

Standard procedure for chemical fires.

## 6. Accidental Release Measures

### Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation  
Always wear recommended Personal Protective Equipment  
Use personal protection equipment  
See section 8 for more information

### Environmental precautions

No special environmental precautions required.

### Methods and material for containment and cleaning up

Soak up with inert absorbent material.

### Reference to other sections

See section 8 for more information.

## 7. Handling and Storage

### Precautions for safe handling

Use personal protective equipment as required. No special handling advices are necessary.

### Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place.  
Keep in properly labeled containers.

### Specific end use(s)

For Laboratory Use

## 8. Exposure Controls/Personal Protection

### Control parameters

Exposure Limits	Contains no substances with occupational exposure limit values.
Engineering Measures	Ensure adequate ventilation, especially in confined areas.

### Exposure controls

#### Personal Protective Equipment

##### Respiratory protection

In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards.

##### Hand protection

Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.

##### Eye protection

Tight sealing safety goggles.

##### Skin and Body Protection

Wear suitable protective clothing.

##### Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

### Environmental exposure controls

No special environmental precautions require

## 9. Physical and Chemical Properties

Physical State	Liquid
Appearance	Colorless
Odor	Odorless
Odor Threshold	No information available
pH	6-8
Melting Point/Range	No data available
Boiling Point/Range	No information available
Flash Point	No information available
Evaporation Rate	No information available
Flammability (solid,gas)	Not applicable
Flammability or explosive limits	

<b>Upper</b>	No data available
<b>Lower</b>	No data available
<b>Vapor Pressure</b>	No information available
<b>Vapor Density</b>	No information available
<b>Specific Gravity</b>	No information available
<b>Solubility</b>	No information available
<b>Partition coefficient; n-octanol/water</b>	No data available
<b>Autoignition Temperature</b>	No information available
<b>Decomposition Temperature</b>	No information available
<b>Viscosity</b>	No information available

## 10 Stability and Reactivity

<b>Reactivity</b>	None known.
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous reaction has not been reported.
<b>Conditions to avoid</b>	No information available.
<b>Incompatible materials</b>	No dangerous reaction known under conditions of normal use.
<b>Hazardous decomposition products</b>	No data available

## 11. Toxicological Information

### Information on toxicological effects

There is no evidence available indicating acute toxicity.

### **Principal Routes of Exposure**

<b>Acute toxicity</b>	Data are conclusive but insufficient for classification.
<b>Skin corrosion/irritation</b>	Data are conclusive but insufficient for classification
<b>Serious eye damage/irritation</b>	Data are conclusive but insufficient for classification
<b>Respiratory or skin sensitization</b>	Data are conclusive but insufficient for classification

### **Specific target organ toxicity (STOT)–single exposure**

Data are conclusive but insufficient for classification

### **Specific target organ toxicity (STOT)–repeated exposure**

Data are conclusive but insufficient for classification

<b>Carcinogenicity</b>	Data are conclusive but insufficient for classification
<b>Germ cell mutagenicity</b>	Data are conclusive but insufficient for classification
<b>Reproductive toxicity</b>	Data are conclusive but insufficient for classification
<b>Aspiration hazard</b>	Data are conclusive but insufficient for classification

## 12. Ecological Information

### **Ecotoxicity**

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

<b>Mobility in soil</b>	No information available.
<b>Persistence and degradability</b>	No information available.
<b>Bioaccumulative potential</b>	No information available.

### **Results of PBT and vPvB assessment**

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

### **Other adverse effects**

No information available

## 13. Disposal Considerations

### Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in accordance with approved disposal technique.

Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations

#### 14. Transport Information

##### **IATA / ADR / DOT-US / IMDG**

Not regulated in the meaning of transport regulations

<b>UN number</b>	Not Applicable
<b>UN proper shipping name</b>	Not Applicable
<b>Transport hazard class(es)</b>	Not Applicable
<b>Packing group</b>	Not Applicable
<b>Environmental hazards</b>	Not Applicable
<b>Special precautions for user</b>	Not Applicable

##### **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not Applicable.

#### 15. Regulatory Information

##### **US Federal Regulations**

###### **SARA 313**

This product is not regulated by SARA.

###### **Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)**

This product does not contain HAPs

##### **US State Regulations**

California Proposition 65

This product does not contain any Proposition 65 chemicals.

##### **WHMIS Hazard Class**

Non-controlled

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

##### **National Regulations - Brazil**

Not regulated

#### 16. Other Information

This information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of the material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.

Abbreviations and acronyms:

**ADR:** Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

**IMDG:** International Maritime Code for Dangerous Goods

**DOT:** US Department of Transportation

**IATA:** International Air Transport Association

**ACGIH:** American Conference of Governmental Industrial Hygienists

**NFPA:** National Fire Protection Association (USA)

**HMIS:** Hazardous Materials Identification System (USA)

**LC50:** Lethal concentration, 50 percent LD50: Lethal dose, 50 percent

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## VB-6027-2 RTU polymeric peroxidase anti-rat secondary antibody MSDS

### 1. Identification of the Substance/Mixture and Company

<b>Product Name</b>	RTU polymeric peroxidase anti-rat secondary antibody
<b>Catalog#</b>	VB-6027-2
<b>Product Description</b>	Component
<b>Manufacturer/Supplier</b>	VitroVivo Biotech, LLC. 405 E Gude Dr., Suite 214, Rockville, MD 20850
<b>Tel/fax Number</b>	Phone: 301-500-0499; Toll free: 1-800-260-9817 Fax: 844-248-6208

### 2. Hazards Identification

#### Classification

This substance/mixture is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

#### GHS Label elements, including precautionary statements

**Signal Word**  
Not classified

**Hazard statement(s)**  
None.

**Precautionary Statement(s)**  
None.

#### Supplementary Hazard Information

May produce an allergic reaction

**Hazards not otherwise classified (HNOC)**  
Not applicable.

### 3. Composition/information on ingredients

**Substances**  
Not applicable

**Mixtures**  
This mixture does not contain any substances to be mentioned according to the criteria of section 3.2 of HazCom 2012

### 4. First Aid Measures

<b>Eye contact</b>	Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing. Get medical attention immediately if irritation persists.
<b>Skin contact</b>	Wash skin with soap and water.
<b>Inhalation</b>	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention immediately if symptoms occur.
<b>Ingestion</b>	Clean mouth with water and afterwards drink plenty of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person.

#### Most important symptoms and effects, both acute and delayed

Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain, or flushing.

**Indication of any immediate medical attention and special treatment needed**  
Treat symptomatically.

#### Advice for emergency responders

**General advice** For further assistance, contact your local Poison Control Center.

**Protection of first-aiders**                      Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

**5. Firefighting Measures**

**Extinguishing media**

**Suitable Extinguishing Media**                      Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
**Unsuitable Extinguishing Media**                      CAUTION: Use of water spray when fighting fire may be inefficient.

**Specific hazards arising from the chemical**                      No information available.

**Explosion Data**

**Sensitivity to Mechanical Impact**                      None.  
**Sensitivity to Static Discharge**                      None.

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

**6. Accidental Release Measures**

**Personal precautions, protective equipment and emergency procedures**

**For non-emergency personnel**                      Avoid contact with skin, eyes and clothing. Use personal protective equipment.  
For personal protection see section 8.  
**Other information**                      No information available

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Prevent entry into waterways, sewers, basements or confined areas.

**Methods and material for containment and cleaning up**

**Methods for containment**                      Prevent further leakage or spillage if safe to do so.  
**Methods for cleaning up**                      Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

**7. Handling and Storage**

**Precautions for safe handling**

Wear personal protective equipment. See section 8. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Handle in accordance with good industrial hygiene and safety practice.

**Conditions for safe storage, including any incompatibilities**

**Technical measures/Storage conditions**                      Keep containers tightly closed in a dry, cool and well-ventilated place.  
**Packaging material**                      No information available.  
**Incompatible products**                      Strong oxidizing agents. Strong acids

**8. Exposure Controls/Personal Protection**

**Appropriate engineering controls**

Showers, eyewash stations, and ventilation systems.

**Individual protection measures, such as personal protective equipment**

Personal protective equipment (PPE) needs to be selected depending on the implemented engineering controls, frequency/duration of work activities and the concentrations of the hazardous substance.

**Eye/face protection**                      If splashes are likely to occur, wear: Tightly fitting safety goggles  
**Skin and body protection**                      Wear protective gloves/clothing.  
**Respiratory protection**                      If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA



approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

**Hygiene measures**

Handle in accordance with good industrial hygiene and safety practice.

**9. Physical and Chemical Properties**

**Information on basic physical and chemical properties**

**Physical State:** Liquid

**Appearance:** clear

**Odor:** Not available.

**pH:** Not available.

**Vapor Pressure:** Not available.

**Vapor Density:** Not available.

**Evaporation Rate:** Not available.

**Viscosity:** Not available.

**Boiling Point:** Not available.

**Freezing/Melting Point:** Not available.

**Decomposition Temperature:** Not available.

**Solubility:** Soluble.

**Specific Gravity/Density:** Not available.

**Molecular Formula:** Solution

**Molecular Weight:** Not available.

**10 Stability and Reactivity**

**Reactivity**

No information available.

**Chemical stability**

Stable under normal conditions.

**Possibility of hazardous reactions**

Hazardous reactions                      None under normal processing.

Hazardous polymerization              None under normal processing.

**Conditions to Avoid**

Extremes of temperature and direct sunlight. Over a period of time, sodium azide may react with copper, lead, brass, or solder in plumbing systems to form an accumulation of the HIGHLY EXPLOSIVE compounds of lead azide & copper azide.

**Incompatible Materials**

No information available.

**Hazardous Decomposition Products**

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

**11. Toxicological Information**

**Information on likely routes of exposure**

**Inhalation**                                      Avoid breathing vapors or mists. May cause irritation of respiratory tract.

**Eye contact**                                    Avoid contact with eyes. May cause slight irritation.

**Skin contact**                                    Avoid contact with skin.

**Ingestion**                                        Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

**Information on toxicological effects**

This product is for experimental uses only. The product has not been completely analyzed and all of the hazards may not be known. Please use caution while handling this product.

<b>Sensitization</b>	No information available.
<b>Mutagenic effects</b>	No information available.
<b>Carcinogenicity</b>	No information available.
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Neurological effects</b>	No information available.
<b>Aspiration Hazard</b>	No information available.

## 12. Ecological Information

### Toxicity

**Ecology-general** The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment

**Persistence and degradability** No information available.

**Bioaccumulation** No information available.

**Mobility** No information available

### Other adverse effects

No information available

## 13. Disposal Considerations

### Waste Disposal Methods

Dispose of in accordance with all applicable national environmental laws and regulations.

### Disposal considerations

Do not empty into drains; dispose of this material and its container in a safe way

## 14. Transport Information

This material is not subject to regulation as a hazardous material for shipping

## 15. Regulatory Information

### US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

### International regulations

No additional information available

### US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm.

## 16. Other Information

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