Safety Information

Human APRIL ELISA

Revision Date: 13.2.2018

The RAF004R Human APRIL ELISA is an enzyme-linked immunosorbent assay for the quantitative detection of Human APRIL.
For professional use only. Users should have a thorough understanding of the Product Data Sheet prior to their use of this kit.

Kit Components:

A) Antibody Coated Microtiter Strips
B) Biotin-Conjugate
C) Streptavidin-HRP
D) Standard
E) Sample Diluent
F) Assay Buffer Concentrate
G) Wash Buffer Concentrate
H) Substrate Solution
I) Stop Solution
J) Adhesive Films

Components C) and I) contain hazardous mixture according to CLP Regulation (EC) as amended. Safety Data Sheets according to actual Regulations (EC/EU) are attached.
SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product identifier

Trade name: Straptavidin-HRP (RAF004R Kit)
Additional identification: contains 5-bromo-5-nitro-1,3-dioxane (Bronidox)

1.2 Relevant identified uses of the substance or mixture and uses advised against

Assay component – HRP conjugate.

1.3 Details of the supplier of the safety data sheet

BioVendor - Laboratorní medicína a.s.
Karásek 1767/1
621 00 Brno
Czech Republic
Identification number: 63471507
Tel: +420 549 124 185
E-mail: info@biovendor.com

1.4 Emergency telephone number

Toxicology information centre, Na Bojišti 1, 128 21 Prague, Czech Republic, Tel: +420 224 919 293 or +420 224 915 402 (non-stop service).

SECTION 2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation 1272/2008/EC:
Chronic aquatic toxicity (Category 3), H412

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008
Hazard pictogram:
None
Signal word:
None
Hazard statement:
H412 Harmful to aquatic life with long lasting effects.
Precautionary statement(s)
P273 Avoid release to the environment
P501 Dispose of contents/ container to an approved waste disposal plant

2.3 Other hazards

No information available.
Straptavidin-HRP (RAF004R Kit)

Date of issue: 13.2.2018
Supersedes date: 

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Mixtures

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Conc. %</th>
<th>CAS-Nr.</th>
<th>EC-Nr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-bromo-5-nitro-1,3-dioxane</td>
<td>&lt; 1.0</td>
<td>30007-47-7</td>
<td>250-001-72</td>
</tr>
</tbody>
</table>

Classification according to regulation 1272/2008/EC:
Aqua. Chron. 3; H412

For full text of H-phrases see section 16.

SECTION 4 FIRST AID MEASURES

4.1 Description of first aid measures

If inhaled: Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary.
In case of skin contact: Rinse with plenty of water. Immediate medical attention is not required.
In case of eye contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
If swallowed: Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5 FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media
Water spray, carbon dioxide (CO2), foam, dry chemical.

5.2 Special hazards arising from the substance or mixture

Not known.

5.3 Advice for firefighters

Standard procedure for chemical fires.

5.4 Further information

No data available.

SECTION 6 ACCIDENTAL RELEASE MEASURES

6.1 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 detail.
6.2 Environmental precautions
Should not be released into the environment. Prevent product from entering drains.

6.3 Methods and material for containment and cleaning up
Soak up with inert absorbent material.

6.4 Reference to other sections
See section 8 for more information.
For disposal see section 13.

SECTION 7 HANDLING AND STORAGE

7.1 Precautions for safe handling
Use personal protective equipment as required. No special handling advices are necessary.

7.2 Conditions for safe storage, including any incompatibilities
Keep in a dry, cool and well-ventilated place. Keep in properly labelled containers.

7.3 Specific end use(s)
For research use only.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters
None.
Engineering measures: Ensure adequate ventilation, especially in confined areas.

8.2 Exposure controls
Personal protective equipment
  a) Eye/face protection: Tightly fitting safety goggles.
  b) Skin protection: Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.
  c) Body Protection: Wear suitable protective clothing.
  d) Respiratory protection: In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards.
  e) Hygiene measures: Handle in accordance with good industrial hygiene and safety practice.
  f) Control of environmental exposure: Should not be released into the environment. Prevent product from entering drains.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
  a) Appearance          Liquid
  b) Odour               No data available
  c) pH                  No data available
  d) Melting point / melting range Mixture has not been tested
  e) Boiling point / boiling range Mixture has not been tested
  f) Flash point         Mixture has not been tested
  g) Autoignition temperature Mixture has not been tested
MATERIAL SAFETY DATA SHEET
in accordance with Regulation (EC) No. 1907/2006 of the European Parliament
and the Council (REACH) and Commission Regulation (EU) No. 830/2015

**Straptavidin-HRP (RAF004R Kit)**

Date of issue: 13.2.2018
Supersedes date:

h) Decomposition temperature
   Mixture has not been tested
i) Evaporation rate
   No data available
j) Flammability (solid, gas)
   No data available
k) Upper explosion limit
   Mixture has not been tested
l) Lower explosion limit
   Mixture has not been tested
m) Vapour Pressure
   Mixture has not been tested
n) Relative density
   Mixture has not been tested
o) Specific gravity
   No data available
p) Solubility
   No data available
q) Partition coefficient: n-octanol/water
   No data available
r) Explosive properties
   Mixture has not been tested

9.2 Other safety information
No data available.

SECTION 10 STABILITY AND REACTIVITY

10.1 Reactivity
None known.

10.2 Chemical stability
Stable under normal conditions.

10.3 Possibility of hazardous reactions
Hazardous reaction has not been reported.

10.4 Conditions to avoid
No data available.

10.5 Incompatible materials
No data available.

SECTION 11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

**Acute toxicity**
CAS: 30007-47-7, 5-bromo-5-nitro-1,3-dioxane
LD50 (oral, rat/mouse) 455 mg/kg (rat)

Irritation: Conclusive but not sufficient for classification.
Corrosivity: Conclusive but not sufficient for classification.
Sensitisation: Conclusive but not sufficient for classification.
Mutagenicity: Conclusive but not sufficient for classification.
Carcinogenicity: Conclusive but not sufficient for classification.
Reproductive toxicity: Conclusive but not sufficient for classification.
Specific target organ toxicity - single exposure: Conclusive but not sufficient for classification.
Specific target organ toxicity - repeated exposure: Conclusive but not sufficient for classification.
Aspiration hazard: Conclusive but not sufficient for classification.
SECTION 12  ECOLOGICAL INFORMATION

12.1 Toxicity
Hazardous to the aquatic environment.

12.2 Persistence and degradability
No data available.

12.3 Bioaccumulative potential
No data available.

12.4 Mobility in soil
No data available.

12.5 Results of PBT and vPvB assessment
No data available.

12.6 Other adverse effects
No data available.

SECTION 13  DISPOSAL CONSIDERATIONS

13.1 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
according to 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.

13.2 Contaminated packaging
Dispose of as unused product.

SECTION 14  TRANSPORT INFORMATION

14.1 UN number
Not applicable.

14.2 UN proper shipping name
Not applicable.

14.3 Transport hazard class(es)
Not applicable.

14.4 Packaging group
Not applicable.

14.5 Environmental hazards
Not applicable.

14.6 Special precautions for user
Not applicable.
SECTION 15 REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
Act No. 350/2011 Coll., to regulate chemical substances and chemical mixtures and to amend some statutes, as amended. Implemented regulations to Act No. 350/2011 Coll., as amended

15.2 Chemical safety assessment
For this product a chemical safety assessment was not carried out.

SECTION 16 OTHER INFORMATION

Date of issue: 13.2.2018
Supersedes date:

Full text of H-Statements
H412 Harmful to aquatic life with long lasting effects.

Advice on training
Workers shall receive appropriate training to acquaint them with the recommended use, mandatory protective equipment, first aid measures and banned manners of handling the mixture.

Note:
The safety data sheet contains data necessary for ensuring occupational health and safety and protection of the environment. The given data correspond to the current state of knowledge and experience and comply with valid legal regulations. The data cannot be considered a guarantee that the specific use of the product will be appropriate.
Stop Solution (RAF004R Kit)

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product identifier
Trade name: Stop Solution (RAF004R Kit)
Additional identification: 1M Phosphoric acid (H₃PO₄)

1.2 Relevant identified uses of the substance or mixture and uses advised against
Assay component – stop solution.

1.3 Details of the supplier of the safety data sheet
BioVendor - Laboratorní medicína a.s.
Karásek 1767/1
621 00 Brno
Czech Republic
Identification number: 63471507
Tel: +420 549 124 185
E-mail: info@biovendor.com

1.4 Emergency telephone number
Toxicology information centre, Na Bojišti 1, 128 21 Prague, Czech Republic, Tel: +420 224 919 293 or +420 224 915 402 (non-stop service).

SECTION 2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
Classification according to Regulation 1272/2008/EC:
Corrosive to metals (Category 1), H290

2.2 Label elements
Labelling according Regulation (EC) No 1272/2008
Hazard pictogram:

Signal word:
Warning

Hazard statement:
H290 May be corrosive to metals.

Precautionary statement(s)
None

Supplemental hazards statements
None

2.3 Other hazards
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
SECTION 3  COMPOSITION / INFORMATION ON INGREDIENTS

19.1 Mixtures

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Conc. %</th>
<th>CAS-Nr.</th>
<th>EC-Nr.</th>
<th>Index-Nr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric acid</td>
<td>≥ 5 – &lt; 10</td>
<td>7664-38-2</td>
<td>231-633-2</td>
<td>015-011-00-6</td>
</tr>
</tbody>
</table>

Classification according to regulation 1272/2008/EC:
Met. Corr. 1; H290

For full text of H-phrases see section 16.

SECTION 4  FIRST AID MEASURES

4.1 Description of first aid measures

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact: Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.
In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed
The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed
No data available.

SECTION 5  FIREFIGHTING MEASURES

5.1 Extinguishing media
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture
No data available

5.3 Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information
No data available.
SECTION 6  ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.

6.2 Environmental precautions
Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up
Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections
For disposal see section 13.

SECTION 7  HANDLING AND STORAGE

7.1 Precautions for safe handling
Avoid inhalation of vapour or mist. For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities
Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8  EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters
Components with workplace control parameters.

8.2 Exposure controls
Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment
a) Eye/face protection: Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

b) Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove’s outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.
c) **Body Protection:** Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

d) **Respiratory protection:** Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

e) **Control of environmental exposure:** Do not let product enter drains.

### SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

#### 9.1 Information on basic physical and chemical properties

- **Appearance**
  - Form: clear, liquid
  - Colour: colourless

- **Odour**
  - No data available

- **Odour Threshold**
  - No data available

- **pH**
  - No data available

- **Melting point/freezing point**
  - No data available

- **Initial boiling point and boiling range**
  - No data available

- **Flash point**
  - No data available

- **Evaporation rate**
  - No data available

- **Flammability (solid, gas)**
  - No data available

- **Upper/lower flammability or explosive limits**
  - No data available

- **Vapour pressure**
  - No data available

- **Vapour density**
  - No data available

- **Relative density**
  - No data available

- **Water solubility**
  - No data available

- **Partition coefficient: n-octanol/water**
  - No data available

- **Auto-ignition temperature**
  - No data available

- **Decomposition temperature**
  - No data available

- **Viscosity**
  - No data available

- **Explosive properties**
  - No data available

- **Oxidizing properties**
  - No data available

#### 9.2 Other safety information

No data available.

### SECTION 10 STABILITY AND REACTIVITY

#### 10.1 Reactivity

No data available.

#### 10.2 Chemical stability

Stable under recommended storage conditions.
10.3 Possibility of hazardous reactions
No data available.

10.4 Conditions to avoid
No data available.

10.5 Incompatible materials
Strong bases, Powdered metals.

10.6 Hazardous decomposition products
Hazardous decomposition products formed under fire conditions - oxides of phosphorus. Other decomposition products - No data available.
In the event of fire: see section 5.

### SECTION 11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

**Acute toxicity**
No data available

- Skin corrosion/irritation: No data available
- Serious eye damage/eye irritation: No data available
- Respiratory or skin sensitisation: No data available
- Germ cell mutagenicity: No data available
- Carcinogenicity: IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
- Reproductive toxicity: No data available
- Specific target organ toxicity - single exposure: No data available
- Specific target organ toxicity - repeated exposure: No data available
- Aspiration hazard: No data available
- Additional Information: RTECS: Not available

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea.

### SECTION 12 ECOLOGICAL INFORMATION

12.1 Toxicity
No data available.

12.2 Persistence and degradability
No data available.

12.3 Bioaccumulative potential
No data available.
12.4 Mobility in soil
No data available.

12.5 Results of PBT and vPvB assessment
This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects
No data available.

SECTION 13 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Product
Offer surplus and non-recyclable solutions to a licensed disposal company.

13.2 Contaminated packaging
Dispose of as unused product.

SECTION 14 TRANSPORT INFORMATION

14.1 UN number
ADR/RID: 1805 IMDG: 1805 IATA: 1805

14.2 UN proper shipping name
ADR/RID: PHOSPHORIC ACID SOLUTION IMDG: PHOSPHORIC ACID SOLUTION IATA: Phosphoric acid, solution

14.3 Transport hazard class(es)
ADR/RID: 8 IMDG: 8 IATA: 8

14.4 Packaging group
ADR/RID: III IMDG: III IATA: III

14.5 Environmental hazards
ADR/RID: no IMDG Marine pollutant: no IATA: no

14.6 Special precautions for user
No data available.

SECTION 15 REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
Act No. 350/2011 Coll., to regulate chemical substances and chemical mixtures and to amend some statutes, as amended. Implemented regulations to Act No. 350/2011 Coll., as amended
MATERIAL SAFETY DATA SHEET

Stop Solution (RAF004R Kit)
Date of issue: 13.2.2018
Supersedes date:


15.2 Chemical safety assessment
For this product a chemical safety assessment was not carried out.

SECTION 16 OTHER INFORMATION

Date of issue: 13.2.2018
Supersedes date:

Full text of H-Statements
H290 May be corrosive to metals.
H314 Causes severe skin burns and eye damage.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

Advice on training
Workers shall receive appropriate training to acquaint them with the recommended use, mandatory protective equipment, first aid measures and banned manners of handling the mixture.

Note:
The safety data sheet contains data necessary for ensuring occupational health and safety and protection of the environment. The given data correspond to the current state of knowledge and experience and comply with valid legal regulations. The data cannot be considered a guarantee that the specific use of the product will be appropriate.