SAFETY DATA SHEET
PathDetect CREB trans Reporting System, Part Number 219010

Section 1. Identification

Product identifier : PathDetect CREB trans Reporting System, Part Number 219010
Part No. (Chemical Kit) : 219010
Part No. : pFR-Luc Plasmid (Reporter Plasmid) 219050-51
           pFA2-CREB Plasmid 219067-51
           pFC2-dbd 219055-51
           pFC-PKA Plasmid 219070-51

Supplier/Manufacturer : Agilent Technologies Australia Pty Ltd
679 Springvale Road
Mulgrave
Victoria 3170, Australia
1800 802 402

Emergency telephone number (with hours of operation) : CHEMTREC®: +(61)-290372994

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

Analytical reagent.

<table>
<thead>
<tr>
<th>Substance/Plasmid</th>
<th>Amount (µl)</th>
<th>Concentration (µg/µl)</th>
</tr>
</thead>
<tbody>
<tr>
<td>pFR-Luc Plasmid (Reporter Plasmid)</td>
<td>0.05</td>
<td>1</td>
</tr>
<tr>
<td>pFA2-CREB Plasmid</td>
<td>0.05</td>
<td>25</td>
</tr>
<tr>
<td>pFC2-dbd</td>
<td>0.02</td>
<td>25</td>
</tr>
<tr>
<td>pFC-PKA Plasmid</td>
<td>0.05</td>
<td>25</td>
</tr>
</tbody>
</table>

Section 2. Hazard(s) identification

Classification of the substance or mixture
Not classified.

GHS label elements
Signal word
- pFR-Luc Plasmid (Reporter Plasmid) : No signal word.
- pFA2-CREB Plasmid : No signal word.
- pFC2-dbd : No signal word.
- pFC-PKA Plasmid : No signal word.

Hazard statements
- pFR-Luc Plasmid (Reporter Plasmid) : No known significant effects or critical hazards.
- pFA2-CREB Plasmid : No known significant effects or critical hazards.
- pFC2-dbd : No known significant effects or critical hazards.
- pFC-PKA Plasmid : No known significant effects or critical hazards.

Precautionary statements
Prevention
- pFR-Luc Plasmid (Reporter Plasmid) : Not applicable.
- pFA2-CREB Plasmid : Not applicable.
- pFC2-dbd : Not applicable.
- pFC-PKA Plasmid : Not applicable.

Response
- pFR-Luc Plasmid (Reporter Plasmid) : Not applicable.
- pFA2-CREB Plasmid : Not applicable.
- pFC2-dbd : Not applicable.
- pFC-PKA Plasmid : Not applicable.

Date of issue/Date of revision : 31/12/2017
Date of previous issue : 30/09/2015
Version : 2.02

**Section 2. Hazard(s) identification**

**Storage**
- pFR-Luc Plasmid (Reporter Plasmid): Not applicable.
- pFA2-CREB Plasmid: Not applicable.
- pFC2-dbd: Not applicable.
- pFC-PKA Plasmid: Not applicable.

**Disposal**
- pFR-Luc Plasmid (Reporter Plasmid): Not applicable.
- pFA2-CREB Plasmid: Not applicable.
- pFC2-dbd: Not applicable.
- pFC-PKA Plasmid: Not applicable.

**Supplemental label elements**

**Additional warning phrases**
- pFR-Luc Plasmid (Reporter Plasmid): Not applicable.
- pFA2-CREB Plasmid: Not applicable.
- pFC2-dbd: Not applicable.
- pFC-PKA Plasmid: Not applicable.

**Other hazards which do not result in classification**
- pFA2-CREB Plasmid: None known.
- pFC2-dbd: None known.
- pFC-PKA Plasmid: None known.

**Section 3. Composition and ingredient information**

**Substance/mixture**
- pFR-Luc Plasmid (Reporter Plasmid): Mixture
- pFA2-CREB Plasmid: Mixture
- pFC2-dbd: Mixture
- pFC-PKA Plasmid: Mixture

**CAS number/other identifiers**
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.

Occupational exposure limits, if available, are listed in Section 8.

**Section 4. First aid measures**

**Description of necessary first aid measures**

**Eye contact**
- pFR-Luc Plasmid (Reporter Plasmid): Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
- pFA2-CREB Plasmid: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
- pFC2-dbd: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
- pFC-PKA Plasmid: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
## Section 4. First aid measures

### Inhalation
- **pFR-Luc Plasmid (Reporter Plasmid)**: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- **pFA2-CREB Plasmid**: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- **pFC2-dbd**: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
- **pFC-PKA Plasmid**: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.

### Skin contact
- **pFR-Luc Plasmid (Reporter Plasmid)**: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- **pFA2-CREB Plasmid**: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- **pFC2-dbd**: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- **pFC-PKA Plasmid**: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

### Ingestion
- **pFR-Luc Plasmid (Reporter Plasmid)**: Wash out mouth with water. 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. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
- **pFA2-CREB Plasmid**: Wash out mouth with water. 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. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
- **pFC2-dbd**: Wash out mouth with water. 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. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
- **pFC-PKA Plasmid**: Wash out mouth with water. 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. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

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

#### Potential acute health effects
- **Eye contact**: No known significant effects or critical hazards.
- **pFA2-CREB Plasmid**: No known significant effects or critical hazards.
- **pFC2-dbd**: No known significant effects or critical hazards.
- **pFC-PKA Plasmid**: No known significant effects or critical hazards.
## Section 4. First aid measures

### Inhalation:
- pFR-Luc Plasmid (Reporter Plasmid): No known significant effects or critical hazards.
- pFA2-CREB Plasmid: No known significant effects or critical hazards.
- pFC2-dbd: No known significant effects or critical hazards.
- pFC-PKA Plasmid: No known significant effects or critical hazards.

### Skin contact:
- pFR-Luc Plasmid (Reporter Plasmid): No known significant effects or critical hazards.
- pFA2-CREB Plasmid: No known significant effects or critical hazards.
- pFC2-dbd: No known significant effects or critical hazards.
- pFC-PKA Plasmid: No known significant effects or critical hazards.

### Ingestion:
- pFR-Luc Plasmid (Reporter Plasmid): No known significant effects or critical hazards.
- pFA2-CREB Plasmid: No known significant effects or critical hazards.
- pFC2-dbd: No known significant effects or critical hazards.
- pFC-PKA Plasmid: No known significant effects or critical hazards.

### Over-exposure signs/symptoms:

#### Eye contact:
- pFR-Luc Plasmid (Reporter Plasmid): No specific data.
- pFA2-CREB Plasmid: No specific data.
- pFC2-dbd: No specific data.
- pFC-PKA Plasmid: No specific data.

#### Inhalation:
- pFR-Luc Plasmid (Reporter Plasmid): No specific data.
- pFA2-CREB Plasmid: No specific data.
- pFC2-dbd: No specific data.
- pFC-PKA Plasmid: No specific data.

#### Skin contact:
- pFR-Luc Plasmid (Reporter Plasmid): No specific data.
- pFA2-CREB Plasmid: No specific data.
- pFC2-dbd: No specific data.
- pFC-PKA Plasmid: No specific data.

#### Ingestion:
- pFR-Luc Plasmid (Reporter Plasmid): No specific data.
- pFA2-CREB Plasmid: No specific data.
- pFC2-dbd: No specific data.
- pFC-PKA Plasmid: No specific data.

### Indication of immediate medical attention and special treatment needed, if necessary:

#### Notes to physician:
- pFR-Luc Plasmid (Reporter Plasmid): Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- pFA2-CREB Plasmid: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- pFC2-dbd: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- pFC-PKA Plasmid: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

#### Specific treatments:
- pFC2-dbd: No specific treatment.
- pFC-PKA Plasmid: No specific treatment.
Section 4. First aid measures

**Protection of first-aiders**
- pFR-Luc Plasmid (Reporter Plasmid)
  - No action shall be taken involving any personal risk or without suitable training.
- pFA2-CREB Plasmid
  - No action shall be taken involving any personal risk or without suitable training.
- pFC2-dbd
  - No action shall be taken involving any personal risk or without suitable training.
- pFC-PKA Plasmid
  - No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

Section 5. Firefighting measures

**Extinguishing media**

<table>
<thead>
<tr>
<th>Suitable extinguishing media</th>
<th>pFR-Luc Plasmid (Reporter Plasmid)</th>
<th>Use an extinguishing agent suitable for the surrounding fire.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>pFA2-CREB Plasmid</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
</tr>
<tr>
<td></td>
<td>pFC2-dbd</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
</tr>
<tr>
<td></td>
<td>pFC-PKA Plasmid</td>
<td>Use an extinguishing agent suitable for the surrounding fire.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unsuitable extinguishing media</th>
<th>pFR-Luc Plasmid (Reporter Plasmid)</th>
<th>None known.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>pFA2-CREB Plasmid</td>
<td>None known.</td>
</tr>
<tr>
<td></td>
<td>pFC2-dbd</td>
<td>None known.</td>
</tr>
<tr>
<td></td>
<td>pFC-PKA Plasmid</td>
<td>None known.</td>
</tr>
</tbody>
</table>

**Specific hazards arising from the chemical**

- pFR-Luc Plasmid (Reporter Plasmid)
  - In a fire or if heated, a pressure increase will occur and the container may burst.
- pFA2-CREB Plasmid
  - In a fire or if heated, a pressure increase will occur and the container may burst.
- pFC2-dbd
  - In a fire or if heated, a pressure increase will occur and the container may burst.
- pFC-PKA Plasmid
  - In a fire or if heated, a pressure increase will occur and the container may burst.

**Hazardous thermal decomposition products**

- pFR-Luc Plasmid (Reporter Plasmid)
  - No specific data.
- pFA2-CREB Plasmid
  - No specific data.
- pFC2-dbd
  - No specific data.
- pFC-PKA Plasmid
  - No specific data.

**Special protective actions for fire-fighters**

- pFR-Luc Plasmid (Reporter Plasmid)
  - 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.
- pFA2-CREB Plasmid
  - 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.
- pFC2-dbd
  - 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.
- pFC-PKA Plasmid
  - 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.
Section 5. Firefighting measures

Special protective equipment for fire-fighters:

- **pFR-Luc Plasmid (Reporter Plasmid)**: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- **pFA2-CREB Plasmid**: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- **pFC2-dbd**: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- **pFC-PKA Plasmid**: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:

- **pFR-Luc Plasmid (Reporter Plasmid)**: 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 spilt material. Put on appropriate personal protective equipment.
- **pFA2-CREB Plasmid**: 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 spilt material. Put on appropriate personal protective equipment.
- **pFC2-dbd**: 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 spilt material. Put on appropriate personal protective equipment.
- **pFC-PKA Plasmid**: 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 spilt material. Put on appropriate personal protective equipment.

For emergency responders:

- **pFR-Luc Plasmid (Reporter Plasmid)**: If specialised 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".
- **pFA2-CREB Plasmid**: If specialised 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".
- **pFC2-dbd**: If specialised 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".
- **pFC-PKA Plasmid**: If specialised 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".
Section 6. Accidental release measures

Environmental precautions:
- pFR-Luc Plasmid (Reporter Plasmid): Avoid dispersal of spilt 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).
- pFA2-CREB Plasmid: Avoid dispersal of spilt 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).
- pFC2-dbd: Avoid dispersal of spilt 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).
- pFC-PKA Plasmid: Avoid dispersal of spilt 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).

Methods and material for containment and cleaning up:
- Methods for cleaning up:
  - pFR-Luc Plasmid (Reporter Plasmid): 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.
  - pFA2-CREB Plasmid: 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.
  - pFC2-dbd: 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.
  - pFC-PKA Plasmid: 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

Precautions for safe handling:
- Protective measures:
  - pFR-Luc Plasmid (Reporter Plasmid): Put on appropriate personal protective equipment (see Section 8).
  - pFA2-CREB Plasmid: Put on appropriate personal protective equipment (see Section 8).
  - pFC2-dbd: Put on appropriate personal protective equipment (see Section 8).
  - pFC-PKA Plasmid: Put on appropriate personal protective equipment (see Section 8).
### Section 7. Handling and storage

<table>
<thead>
<tr>
<th>Advice on general occupational hygiene</th>
<th>pFR-Luc Plasmid (Reporter Plasmid)</th>
<th>Conditions for safe storage, including any incompatibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>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. See also Section 8 for additional information on hygiene measures.</td>
<td></td>
</tr>
<tr>
<td>pFA2-CREB Plasmid</td>
<td>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. See also Section 8 for additional information on hygiene measures.</td>
<td></td>
</tr>
<tr>
<td>pFC2-dbd</td>
<td>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. See also Section 8 for additional information on hygiene measures.</td>
<td></td>
</tr>
<tr>
<td>pFC-PKA Plasmid</td>
<td>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. See also Section 8 for additional information on hygiene measures.</td>
<td></td>
</tr>
</tbody>
</table>

| pFR-Luc Plasmid (Reporter Plasmid)     | 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 (see Section 10) 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. |
| pFA2-CREB Plasmid                      | 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 (see Section 10) 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. |
| pFC2-dbd                               | 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 (see Section 10) 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. |
| pFC-PKA Plasmid                        | 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 (see Section 10) 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use. |
Section 7. Handling and storage

original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls and personal protection

Control parameters

Occupational exposure limits
None.

Appropriate engineering controls

Environmental exposure controls

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures
Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection
Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection
Hand protection
Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection
Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection
Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection
Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

Section 9. Physical and chemical properties

Appearance
Physical state
pFR-Luc Plasmid (Reporter Plasmid) Liquid.
pFA2-CREB Plasmid Liquid.
pFC2-dbd Liquid.
pFC-PKA Plasmid Liquid.
## Section 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>pFR-Luc Plasmid (Reporter Plasmid)</th>
<th>pFA2-CREB Plasmid</th>
<th>pFC2-dbd</th>
<th>pFC-PKA Plasmid</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>7.5</td>
<td>7.5</td>
<td>7.5</td>
<td>7.5</td>
</tr>
<tr>
<td>Melting point</td>
<td>0°C (32°F)</td>
<td>0°C (32°F)</td>
<td>0°C (32°F)</td>
<td>0°C (32°F)</td>
</tr>
<tr>
<td>Boiling point</td>
<td>100°C (212°F)</td>
<td>100°C (212°F)</td>
<td>100°C (212°F)</td>
<td>100°C (212°F)</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Lower and upper explosive (flammable) limits</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

**Date of issue/Date of revision**: 31/12/2017  **Date of previous issue**: 30/09/2015  **Version**: 2.02  10/16
### Section 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>pFR-Luc Plasmid (Reporter Plasmid)</th>
<th>pFA2-CREB Plasmid</th>
<th>pFC2-dbd</th>
<th>pFC-PKA Plasmid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solubility</td>
<td>pFR-Luc Plasmid (Reporter Plasmid) Easily soluble in the following materials: cold water and hot water.</td>
<td>pFA2-CREB Plasmid Easily soluble in the following materials: cold water and hot water.</td>
<td>pFC2-dbd Easily soluble in the following materials: cold water and hot water.</td>
<td>pFC-PKA Plasmid Easily soluble in the following materials: cold water and hot water.</td>
</tr>
</tbody>
</table>

### Section 10. Stability and reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>pFR-Luc Plasmid (Reporter Plasmid)</th>
<th>pFA2-CREB Plasmid</th>
<th>pFC2-dbd</th>
<th>pFC-PKA Plasmid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactivity</td>
<td>No specific test data related to reactivity available for this product or its ingredients.</td>
<td>No specific test data related to reactivity available for this product or its ingredients.</td>
<td>No specific test data related to reactivity available for this product or its ingredients.</td>
<td>No specific test data related to reactivity available for this product or its ingredients.</td>
</tr>
<tr>
<td>Chemical stability</td>
<td>The product is stable.</td>
<td>The product is stable.</td>
<td>The product is stable.</td>
<td>The product is stable.</td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
<td>Under normal conditions of storage and use, hazardous reactions will not occur.</td>
</tr>
</tbody>
</table>
Section 10. Stability and reactivity

Conditions to avoid:

- pFR-Luc Plasmid (Reporter Plasmid)
- pFA2-CREB Plasmid
- pFC2-dbd
- pFC-PKA Plasmid

No specific data.

Incompatible materials:

- pFR-Luc Plasmid (Reporter Plasmid)
- pFA2-CREB Plasmid
- pFC2-dbd
- pFC-PKA Plasmid

May react or be incompatible with oxidising materials.

Hazardous decomposition products:

- pFR-Luc Plasmid (Reporter Plasmid)
- pFA2-CREB Plasmid
- pFC2-dbd
- pFC-PKA Plasmid

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

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity
Not available.

Irritation/Corrosion
Not available.

Sensitisation
Not available.

Mutagenicity
Not available.

Carcinogenicity
Not available.

Reproductive toxicity
Not available.

Teratogenicity
Not available.

Specific target organ toxicity (single exposure)
Not available.

Specific target organ toxicity (repeated exposure)
Not available.

Aspiration hazard
Not available.

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### Section 11. Toxicological information

#### Information on likely routes of exposure

<table>
<thead>
<tr>
<th>Route</th>
<th>pFR-Luc Plasmid (Reporter Plasmid)</th>
<th>pFA2-CREB Plasmid</th>
<th>pFC2-dbd</th>
<th>pFC-PKA Plasmid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
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<tr>
<td>Skin contact</td>
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<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
</tr>
<tr>
<td>Ingestion</td>
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<td>No known significant effects or critical hazards.</td>
<td>No known significant effects or critical hazards.</td>
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</tr>
<tr>
<td>Eye contact</td>
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</table>

#### Potential acute health effects

<table>
<thead>
<tr>
<th>Route</th>
<th>pFR-Luc Plasmid (Reporter Plasmid)</th>
<th>pFA2-CREB Plasmid</th>
<th>pFC2-dbd</th>
<th>pFC-PKA Plasmid</th>
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</thead>
<tbody>
<tr>
<td>Inhalation</td>
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<td>No specific data.</td>
<td>No specific data.</td>
<td>No specific data.</td>
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<tr>
<td>Ingestion</td>
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<td>No specific data.</td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>No specific data.</td>
<td>No specific data.</td>
<td>No specific data.</td>
<td>No specific data.</td>
</tr>
</tbody>
</table>

#### Symptoms related to the physical, chemical and toxicological characteristics

<table>
<thead>
<tr>
<th>Route</th>
<th>pFR-Luc Plasmid (Reporter Plasmid)</th>
<th>pFA2-CREB Plasmid</th>
<th>pFC2-dbd</th>
<th>pFC-PKA Plasmid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
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</tr>
<tr>
<td>Skin contact</td>
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<tr>
<td>Ingestion</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
<td>Not available.</td>
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</tbody>
</table>

#### Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Short term exposure**

<table>
<thead>
<tr>
<th>Potential immediate effects</th>
<th>Not available.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential delayed effects</td>
<td>Not available.</td>
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</tbody>
</table>

**Long term exposure**

<table>
<thead>
<tr>
<th>Potential immediate effects</th>
<th>Not available.</th>
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</thead>
</table>

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Section 11. Toxicological information

Potential delayed effects : Not available.
Potential chronic health effects
Not available.

General
- pFR-Luc Plasmid (Reporter Plasmid): No known significant effects or critical hazards.
- pFA2-CREB Plasmid: No known significant effects or critical hazards.
- pFC2-dbd: No known significant effects or critical hazards.
- pFC-PKA Plasmid: No known significant effects or critical hazards.

Carcinogenicity
- pFR-Luc Plasmid (Reporter Plasmid): No known significant effects or critical hazards.
- pFA2-CREB Plasmid: No known significant effects or critical hazards.
- pFC2-dbd: No known significant effects or critical hazards.
- pFC-PKA Plasmid: No known significant effects or critical hazards.

Mutagenicity
- pFR-Luc Plasmid (Reporter Plasmid): No known significant effects or critical hazards.
- pFA2-CREB Plasmid: No known significant effects or critical hazards.
- pFC2-dbd: No known significant effects or critical hazards.
- pFC-PKA Plasmid: No known significant effects or critical hazards.

Teratogenicity
- pFR-Luc Plasmid (Reporter Plasmid): No known significant effects or critical hazards.
- pFA2-CREB Plasmid: No known significant effects or critical hazards.
- pFC2-dbd: No known significant effects or critical hazards.
- pFC-PKA Plasmid: No known significant effects or critical hazards.

Developmental effects
- pFR-Luc Plasmid (Reporter Plasmid): No known significant effects or critical hazards.
- pFA2-CREB Plasmid: No known significant effects or critical hazards.
- pFC2-dbd: No known significant effects or critical hazards.
- pFC-PKA Plasmid: No known significant effects or critical hazards.

Fertility effects
- pFR-Luc Plasmid (Reporter Plasmid): No known significant effects or critical hazards.
- pFA2-CREB Plasmid: No known significant effects or critical hazards.
- pFC2-dbd: No known significant effects or critical hazards.
- pFC-PKA Plasmid: No known significant effects or critical hazards.

Numerical measures of toxicity
Acute toxicity estimates
Not available.

Section 12. Ecological information

Toxicity
Not available.

Persistence and degradability
Not available.

Bioaccumulative potential
Not available.

Mobility in soil
Soil/water partition coefficient (KOC) : Not available.

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Section 12. Ecological information

Other adverse effects: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods: The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

ADG / IMDG / IATA: Not regulated as Dangerous Goods according to the ADG Code.

Special precautions for user: Transportation within user’s premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according to Annex II of Marpol and the IBC Code: Not available.

Section 15. Regulatory information

Standard Uniform Schedule of Medicine and Poisons
Not regulated.

Model Work Health and Safety Regulations - Scheduled Substances
No listed substance

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals
Not listed.

Montreal Protocol (Annexes A, B, C, E)
Not listed.

Stockholm Convention on Persistent Organic Pollutants
Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)
Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals
Not listed.

Inventory list

Australia: Not determined.
Canada: Not determined.
China: All components are listed or exempted.
Europe: All components are listed or exempted.
Japan: Japan inventory (ENCS): Not determined.
Japan inventory (ISHL): All components are listed or exempted.
Malaysia: Not determined.

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Section 15. Regulatory information

- **New Zealand**: Not determined.
- **Philippines**: Not determined.
- **Republic of Korea**: Not determined.
- **Taiwan**: All components are listed or exempted.
- **Thailand**: Not determined.
- **Turkey**: Not determined.
- **United States**: All components are listed or exempted.
- **Viet Nam**: Not determined.

Section 16. Any other relevant information

**History**
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**Key to abbreviations**
- ADG = Australian Dangerous Goods
- ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- NOHSC = National Occupational Health and Safety Commission
- SUSMP = Standard Uniform Schedule of Medicine and Poisons
- UN = United Nations

**Procedure used to derive the classification**

<table>
<thead>
<tr>
<th>Classification</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not classified.</td>
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</table>

**References**: Not available.

Indicates information that has changed from previously issued version.

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