SECTION 1. Identification

Product identifier

Product No 8589
Product name Retinoic Acid and Retinoid X Receptors Antibody Sampler Kit

Kit Component

3085: RXRα (D6H10) Rabbit mAb
2554: RARα Antibody
8715: RXRβ Antibody
8965: RARγ1 (D3A4) XP® Rabbit mAb
5629: RXRγ Antibody
7074: Anti-rabbit IgG, HRP-linked Antibody

Recommended use of the chemical and restrictions on use

Identified uses This product is intended for research purposes only.

Manufacturer, importer, supplier

Manufacturer address Cell Signaling Technology, Inc.
3 Trask Lane
Danvers, MA 01923
United States
TEL: +1 978 867 2300
FAX: +1 978 867 2400
Website www.cellsignal.com
Email address support@cellsignal.com
Emergency telephone number In case of emergency call CHEMTREC 1-800-424-9300

SECTION 2. Hazard(s) 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 None.

Hazard statement(s) None.

Precautionary Statement(s)
SECTION 3. Composition/information on ingredients

Kit Component

The following kit components contain the ingredients listed in the table below:

3085: RXRα (D6H10) Rabbit mAb
8965: RARγ1 (D3A4) XP® Rabbit mAb

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No.</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>glycerol</td>
<td>56-81-5</td>
<td>30-60</td>
</tr>
<tr>
<td>sodium azide</td>
<td>26628-22-8</td>
<td>&lt;0.02</td>
</tr>
</tbody>
</table>

Kit Component

The following kit components contain the ingredients listed in the table below:

2554: RARα Antibody
8715: RXRβ Antibody
5629: RXRγ Antibody
7074: Anti-rabbit IgG, HRP-linked Antibody

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No.</th>
<th>Weight-%</th>
</tr>
</thead>
<tbody>
<tr>
<td>glycerol</td>
<td>56-81-5</td>
<td>30-60</td>
</tr>
</tbody>
</table>

SECTION 4. First-aid measures

Eye contact
Rinse thoroughly with plenty of water, also under the eyelids. Keep eye wide open while rinsing. Get medical attention immediately if irritation persists.

Skin contact
Wash skin with soap and water.

Inhalation
IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. Get medical attention immediately if symptoms occur.

Ingestion
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.
Extinguishing media

**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable Extinguishing Media**

None.

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.

SECTION 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.

SECTION 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.

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.

SECTION 8. Exposure controls/personal protection

Control parameters

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>NIOSH REL</th>
</tr>
</thead>
<tbody>
<tr>
<td>glycerol</td>
<td>-</td>
<td>TWA mist, total particulate: 15 mg/m³</td>
<td>-</td>
</tr>
</tbody>
</table>
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

- Safety glasses with side-shields.

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.

SECTION 9. Physical and chemical properties

Information on the known physical chemical properties of each component within Kit are given below. If not included, information is either not available or not applicable. Refer to individual kit component SDS for further information.

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Kit Component</th>
<th>3085: RXRα (D6H10) Rabbit mAb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear</td>
</tr>
<tr>
<td>Color</td>
<td>Colorless</td>
</tr>
<tr>
<td>pH VALUE</td>
<td>7.5</td>
</tr>
<tr>
<td>Remarks</td>
<td>@ 20 °C</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Kit Component</th>
<th>2554: RARα Antibody</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear</td>
</tr>
<tr>
<td>Color</td>
<td>Colorless</td>
</tr>
<tr>
<td>pH VALUE</td>
<td>7.5</td>
</tr>
<tr>
<td>Remarks</td>
<td>@ 20 °C</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Kit Component</th>
<th>8715: RXRβ Antibody</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear</td>
</tr>
<tr>
<td>Color</td>
<td>Colorless</td>
</tr>
<tr>
<td>pH VALUE</td>
<td>7.5</td>
</tr>
<tr>
<td>Remarks</td>
<td>@ 20 °C</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Kit Component</th>
<th>8965: RARγ1 (D3A4) XP® Rabbit mAb</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear</td>
</tr>
<tr>
<td>Color</td>
<td>Colorless</td>
</tr>
<tr>
<td>pH VALUE</td>
<td>7.5</td>
</tr>
<tr>
<td>Remarks</td>
<td>@ 20 °C</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Kit Component</th>
<th>5629: RXRγ Antibody</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Kit Component</th>
<th>5629: RXRγ Antibody</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear</td>
</tr>
</tbody>
</table>
SECTION 10. Stability and reactivity

Reactivity
No information available.

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions

<table>
<thead>
<tr>
<th>Hazardous reactions</th>
<th>None under normal processing.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazardous polymerization</td>
<td>None under normal processing.</td>
</tr>
</tbody>
</table>

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
Strong oxidizing agents. Strong acids.

Hazardous Decomposition Products
Nitrogen oxides (NOx).

SECTION 11. Toxicological information

Information on likely routes of exposure

Product Information
This material should only be handled by, or under the close supervision of, those properly qualified in the handling and use of potentially hazardous chemicals. It should be borne in mind that the toxicological and physiological properties of this compound is not well defined.

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

Symptoms
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.

Sensitization
No information available

Skin and Eye Corrosion/Irritation
No information available

Sensitization
No information available

Mutagenic effects
No information available

Carcinogenicity
No component of this product present at levels greater than or equal to 0.1% is identifiable as probable, possible or confirmed carcinogen by IARC, ACGIH, NTP, or OSHA.

Reproductive toxicity
No information available.

Systemic Target Organ Toxicity (STOT)
No information available

Aspiration Hazard
No information available.

SECTION 12. Ecological information

Ecotoxicity

Product Information
No information available

Component Information

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Toxicity to algae</th>
<th>Toxicity to fish</th>
<th>Toxicity to daphnia and other aquatic invertebrates</th>
</tr>
</thead>
<tbody>
<tr>
<td>glycerol</td>
<td>-</td>
<td>LC50 51 - 57 mL/L (Oncorhynchus mykiss) 96 h</td>
<td>EC50 500 mg/L (Daphnia magna) 24 h</td>
</tr>
<tr>
<td>sodium azide</td>
<td>EC50 0.35 mg/L (Pseudokirchneriella subcapitata) 96 h</td>
<td>LC50 0.8 mg/L (Oncorhynchus mykiss) 96 h LC50 5.46 mg/L (Pimephales promelas) 96 h LC50 0.7 mg/L (Lepomis macrochirus) 96 h</td>
<td>LC100 1 mg/L (Orconectes rusticus) 96 h</td>
</tr>
</tbody>
</table>

Persistence and degradability
No information available

Bioaccumulation

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Octanol-Water Partition Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>glycerol</td>
<td>-1.76</td>
</tr>
</tbody>
</table>

Mobility
No information available

Other adverse effects
No information available.
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.

SECTION 14. Transport information

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

SECTION 15. Regulatory information

North American Inventory Listing

Refer to kit component SDS for full Toxic Substance Control Act (TSCA) reporting requirements.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>TSCA 8(b)</th>
<th>TSCA 12(b)</th>
<th>DSL</th>
<th>NDSL</th>
</tr>
</thead>
<tbody>
<tr>
<td>glycerol</td>
<td>Listed</td>
<td>Not Listed</td>
<td>Listed</td>
<td>Not Listed</td>
</tr>
<tr>
<td>sodium azide</td>
<td>Listed</td>
<td>Not Listed</td>
<td>Listed</td>
<td>Not Listed</td>
</tr>
</tbody>
</table>

SARA 313

Refer to kit component SDS for full SARA Section 313 reporting requirements.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS No.</th>
<th>SARA 313 - Threshold Values %</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium azide</td>
<td>26628-22-8</td>
<td>1.0</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazard Categories

- Acute Health Hazard: No
- Chronic Health Hazard: No
- Fire Hazard: No
- Sudden Release of Pressure Hazard: No
- Reactive Hazard: No

Clean Water Act

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

Refer to kit component SDS for full Comprehensive Environmental Response Compensation and Liability Act (CERCLA) reporting requirements.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Hazardous Substances RQs</th>
<th>Extremely Hazardous Substances RQs</th>
</tr>
</thead>
<tbody>
<tr>
<td>sodium azide</td>
<td>1000 lb</td>
<td>1000 lb</td>
</tr>
</tbody>
</table>

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Refer to kit component SDS for applicable State Right-To-Know (RTK) information.

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>New Jersey</th>
<th>Massachusetts</th>
<th>Pennsylvania</th>
</tr>
</thead>
</table>
SECTION 16. Other information

Issuing Date: 2018-12-31

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet