



**Safety Data Sheet (SDS)** According to the OSHA Hazard Communication Standard 29 CFR 1910.1200

**Issuing Date:** 2018-01-19

**Revision Date:** 2024-01-23

**Version:** 3

## SECTION 1. Identification

### Product identifier

**Product No** 7080  
**Product name** PathScan® RP Phospho-IKK $\beta$  (Ser177/181) Sandwich ELISA Kit

**Kit Component** 31107: Phospho-IKK(Ser176/180) Rabbit mAb Coated Microwells  
42646: IKK $\beta$  Rabbit Detection Antibody  
13515: HRP Diluent  
7002: STOP Solution  
7004: TMB Substrate  
9801: ELISA Wash Buffer (20X)

### Hazardous Components

13515: HRP Diluent  
7002: STOP Solution  
9801: ELISA Wash Buffer (20X)  
9803: Cell Lysis Buffer (10X)

**UN number** UN3265

### 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

Classification and label elements described below are inclusive of all hazards of the combined kit. The most severe classifications are listed for each endpoint. Refer to individual kit component SDS for classification and label elements for each component present in the kit.



DANGER: Causes severe skin burns and eye damage. May cause an allergic skin reaction.

Chemical name	CAS No	Weight-%
maleic acid	110-16-7	3-7

**Kit Component 9801: ELISA Wash Buffer (20X)**

WARNING: May cause an allergic skin reaction.

Chemical name	CAS No	Weight-%
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1)	55965-84-9	0.005-0.025

**Kit Component 9803: Cell Lysis Buffer (10X)**

DANGER: Harmful to aquatic life with long lasting effects. Causes serious eye damage. Causes skin irritation.

Chemical name	CAS No	Weight-%
polyethylene glycol	9002-93-1	10
p-(1,1,3,3-tetramethylbutyl)phenylether		
tetrasodium pyrophosphate, decahydrate	13472-36-1	0.1-1

**Kit Component 31107: Phospho-IKK(Ser176/180) Rabbit mAb Coated Microwells  
42646: IKKβ Rabbit Detection Antibody  
7004: TMB Substrate**

These products do not contain substances at concentrations requiring disclosure under 29 CFR 1910.1200 (OSHA Hazard Communication Standard).

#### SECTION 4. First-aid measures

<b>Eye contact</b>	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. If skin irritation or rash occurs: Get medical advice/attention.
<b>Inhalation</b>	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing. If breathing is difficult, give oxygen. If not breathing, give artificial respiration.
<b>Ingestion</b>	Get medical attention. 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**

Contains kit components which may cause the following effects, refer to individual component SDSs for full information on symptoms. Liquid, aerosols and vapors of this product are irritating and can cause pain, tearing, reddening and swelling accompanied by a stinging sensation and/or a feeling like that of fine dust in the eyes. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Contains an animal derived biological. May produce an allergic reaction in susceptible individuals. 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**  
**Protection of first-aiders**

For further assistance, contact your local Poison Control Center.  
Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves

**SECTION 5. Fire-fighting measures**

**Extinguishing media**

**Suitable Extinguishing Media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment  
Carbon dioxide (CO<sub>2</sub>)  
Foam  
Water spray  
Dry powder

**Specific hazards arising from the chemical**

The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors. In the event of fire and/or explosion do not breathe fumes.

**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. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.  
**Other information** Refer to protective measures listed in Sections 7 and 8.

**Environmental precautions**

Do not allow material to contaminate ground water system. Should not be released into the environment. Do not flush into surface water or sanitary sewer system. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

**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. Clean contaminated surface thoroughly. Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

**SECTION 7. Handling and storage**

**Precautions for safe handling**

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation at machinery.

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

<b>Technical measures/Storage conditions</b>	Keep away from direct sunlight. Keep containers tightly closed in a dry, cool and well-ventilated place.
<b>Packaging material</b>	No information available.
<b>Incompatible products</b>	Metals, Strong oxidizing agents, strong acids, and strong bases

**SECTION 8. Exposure controls/personal protection****Control parameters**

Occupational exposure limit values			
Chemical name	ACGIH TLV	OSHA PEL	NIOSH REL
tetrasodium pyrophosphate, decahydrate	-	-	TWA : 5 mg/m <sup>3</sup>

**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.

<b>Eye/face protection</b>	Tightly fitting safety goggles.
<b>Skin and body protection</b>	Lightweight protective clothing. Impervious gloves.
<b>Respiratory protection</b>	In case of inadequate ventilation wear respiratory protection.
<b>Hygiene measures</b>	Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Provide regular cleaning of equipment, work area and clothing. Keep away from food, drink and animal feeding stuffs. Wear suitable gloves and eye/face protection.

**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**

<b>Kit Component</b>	<b>31107: Phospho-IKK(Ser176/180) Rabbit mAb Coated Microwells</b>
Physical state	Solid
Appearance	Microwell Plate
<b>Kit Component</b>	<b>42646: IKKβ Rabbit Detection Antibody</b>
Physical state	Solid
Appearance	Powder, Lyophilized
Color	Red
<b>Kit Component</b>	<b>13515: HRP Diluent</b>
Physical state	Liquid
Appearance	Clear
Color	Red
pH	7.4 (20 °C)
<b>Kit Component</b>	<b>7002: STOP Solution</b>
Physical state	Liquid

Appearance Clear  
Color Colorless  
pH 1.2 (20 °C)

**Kit Component** **7004: TMB Substrate**  
Physical state Liquid  
Appearance Clear  
Color Light yellow  
pH 3.3-3.8 (20 °C)

**Kit Component** **9801: ELISA Wash Buffer (20X)**  
Physical state Liquid  
Appearance Clear  
Color Colorless  
pH 6.4 (20 °C)

**Kit Component** **9803: Cell Lysis Buffer (10X)**  
Physical state Liquid  
Appearance Clear  
Color Colorless  
pH 7.5 (20 °C)

## SECTION 10. Stability and reactivity

### Reactivity

No information available.

### Chemical stability

Stable under recommended storage 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, Exposure to air or moisture over prolonged periods, 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

Metals, Strong oxidizing agents, strong acids, and strong bases

### Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating and toxic gases and vapors

## SECTION 11. Toxicological information

### Information on likely routes of exposure

#### **Product Information**

Refer to kit component SDS for full toxicological 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

<b>Kit Component</b> Inhalation	<b>42646: IKK<math>\beta</math> Rabbit Detection Antibody</b> May cause allergic respiratory reaction.
<b>Kit Component</b> Inhalation	<b>13515: HRP Diluent</b> Avoid breathing vapors or mists. May cause irritation of respiratory tract.
<b>Kit Component</b> Inhalation	<b>7002: STOP Solution</b> Aerosol expected to be irritating based on components.
<b>Kit Component</b> Inhalation	<b>9801: ELISA Wash Buffer (20X)</b> Avoid breathing vapors or mists. May cause irritation of respiratory tract.

### Eye contact

<b>Kit Component</b> Eye contact	<b>13515: HRP Diluent</b> Contact with eyes may cause irritation
<b>Kit Component</b> Eye contact	<b>7002: STOP Solution</b> May cause irreversible damage to eyes
<b>Kit Component</b> Eye contact	<b>9801: ELISA Wash Buffer (20X)</b> Expected to be an irritant based on components
<b>Kit Component</b> Eye contact	<b>9803: Cell Lysis Buffer (10X)</b> Expected to be an irritant based on components

### Skin contact

<b>Kit Component</b> Skin contact	<b>42646: IKK<math>\beta</math> Rabbit Detection Antibody</b> Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.
<b>Kit Component</b> Skin contact	<b>13515: HRP Diluent</b> Repeated or prolonged skin contact may cause allergic reactions with susceptible persons.
<b>Kit Component</b> Skin contact	<b>7002: STOP Solution</b> Corrosive to skin. Prolonged contact with skin is harmful.
<b>Kit Component</b> Skin contact	<b>9801: ELISA Wash Buffer (20X)</b> Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. Expected to be an irritant based on components.

### Ingestion

<b>Kit Component</b> Ingestion	<b>7002: STOP Solution</b> Ingestion causes burns of the upper digestive and respiratory tract. Harmful if swallowed
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**Kit Component**  
Ingestion

**9801: ELISA Wash Buffer (20X)**  
Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea

### Information on toxicological effects

#### Component Information

Chemical name	LD50 Oral	LD50 Dermal	LC50 Inhalation
polyethylene glycol p-(1,1,3,3-tetramethylbutyl)phenylether	= 1800 mg/kg (Rat)	-	-
maleic acid	708 mg/kg (Rat)	1,560 mg/kg (Rabbit)	> 0.72 mg/L (Rat) 1h
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1)	= 53 mg/kg (Rat) = 481 mg/kg (Rat) 232 - 249 mg/kg (Rat) = 120 mg/kg (Rat)	= 200 mg/kg (Rabbit)	= 1.23 mg/L (Rat) 4 h = 0.11 mg/L (Rat) 4 h

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

#### Symptoms

Contains kit components which may cause the following effects, refer to individual component SDSs for full information on symptoms. Liquid, aerosols and vapors of this product are irritating and can cause pain, tearing, reddening and swelling accompanied by a stinging sensation and/or a feeling like that of fine dust in the eyes. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Contains an animal derived biological. May produce an allergic reaction in susceptible individuals. 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.

#### Skin and Eye Corrosion/Irritation

**Kit Component**  
Serious eye damage/eye irritation  
Skin corrosion/irritation

**7002: STOP Solution**  
Risk of serious damage to eyes  
Causes burns

**Kit Component**  
Serious eye damage/eye irritation  
Skin corrosion/irritation

**9801: ELISA Wash Buffer (20X)**  
Causes serious eye irritation  
Causes skin irritation

**Kit Component**  
Serious eye damage/eye irritation

**9803: Cell Lysis Buffer (10X)**  
Irritating to eyes

#### Sensitization

**Kit Component**  
Respiratory Sensitization  
Skin Sensitization

**42646: IKKβ Rabbit Detection Antibody**  
May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
May cause skin sensitization

**Kit Component**  
Skin Sensitization

**7002: STOP Solution**  
May cause skin sensitization

**Kit Component**  
Skin Sensitization

**13515: HRP Diluent**  
Product is or contains a sensitizer. May cause an allergic skin reaction

**Kit Component**  
Skin Sensitization

**9801: ELISA Wash Buffer (20X)**  
Product is or contains a sensitizer. May cause an allergic skin reaction





Bioaccumulation Not likely to bioaccumulate

**Kit Component** **9801: ELISA Wash Buffer (20X)**  
 Bioaccumulation Not likely to bioaccumulate

Chemical name	Octanol-Water Partition Coefficient
maleic acid	0.32

**Mobility**

**Kit Component** **7002: STOP Solution**  
 Mobility Will likely be mobile in the environment due to its water solubility

**Kit Component** **9801: ELISA Wash Buffer (20X)**  
 Mobility Will likely be mobile in the environment due to its water solubility

**Other adverse effects**

No information available.

### SECTION 13. Disposal considerations

**Waste Disposal Methods**

Should not be released into the environment.

**Disposal considerations**

Do not empty into drains; dispose of this material and its container in a safe way. Dispose of wastes in an approved waste disposal facility.

### SECTION 14. Transport information

This material is subject to regulation as a hazardous material for shipping:

**DOT**

**UN number** UN3265  
**UN proper shipping name** Corrosive liquid, acidic, organic, n.o.s. (maleic acid)  
**Transport hazard class(es)** 8  
**Packing group** III

**IATA**

**UN number** UN3265  
**UN proper shipping name** Corrosive liquid, acidic, organic, n.o.s. (maleic acid)  
**Transport hazard class(es)** 8  
**Packing group** III

### SECTION 15. Regulatory information

**North American Inventory Listing**

Chemical name	TSCA 8(b)	TSCA 12(b)	DSL	NDSL

polyethylene glycol p-(1,1,3,3-tetramethylbutyl)phenylether	Listed	Not Listed	Listed	Not Listed
maleic acid	Listed	Not Listed	Listed	Not Listed
reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1)	Not Listed	Section 5: 1 %	Listed	Not Listed

**SARA 313**

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

Chemical name	CAS No	SARA 313 - Threshold Values %
trisodium tetraoxovanadate	13721-39-6	1.0
magnesium nitrate	10377-60-3	1.0
copper dinitrate	3251-23-8	1.0

**SARA 311/312 Hazard Categories**

Acute Health Hazard	Yes
Chronic Health Hazard	Yes
Fire Hazard	No
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

**Clean Water Act**

Refer to kit component SDS for full Clean Water Act (CWA) reporting requirements.

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances	CWA - Bioaccumulative Chemicals of Concern (BCCs)
maleic acid	5000 lb	Not Listed	Not Listed	Listed	Not Listed

**CERCLA**

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

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
maleic acid	5000 lb	Not Listed

**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.

Chemical name	New Jersey	Massachusetts	Pennsylvania
maleic acid	Listed	Listed	Listed
disodium hydrogenorthophosphate	Listed	Listed	Listed
tetrasodium pyrophosphate, decahydrate	Listed	Listed	Listed
trisodium tetraoxovanadate	Listed	Not Listed	Not Listed
magnesium nitrate	Listed	Listed	Listed
copper dinitrate	Listed	Listed	Listed

**SECTION 16. Other information**

**Issuing Date:** 2018-01-19  
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**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