

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product Name**                    **Active Rac1 Detection Kit**  
**Product Number**                **8815**  
**Identified Uses**                 For Research Use Only (RUO). Not intended for use in humans or animals.  
    Not intended for therapeutic or diagnostic procedures.

**Manufacturer/Supplier**        Cell Signaling Technology, Inc.  
    3 Trask Lane  
    Danvers, MA 01923 USA

**Phone #:**                            1-978-867-2300  
**Emergency Tel#**                  1-978-578-6737

**2. HAZARDS IDENTIFICATION**
**Emergency Overview**

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Warning!**

Harmful if inhaled or absorbed through skin. Causes respiratory tract, eye and skin irritation. May cause allergic skin reaction. May be harmful if swallowed. Contains material that can cause target organ damage.

Toxic by inhalation and in contact with skin. Harmful if swallowed. Irritating to eyes, respiratory system and skin. May cause sensitization by skin contact.

**Physical State**

Kit box contains vials of liquids and solids.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**
**Hazardous Ingredients**

Please see the individual material safety data sheets which can be found on the CST website [www.cellsignal.com/support/msds.html](http://www.cellsignal.com/support/msds.html) for hazard communication information specific to individual kit components contained in this product.

Component SKU	Kit Component Name
8659S	GST-Binding Protein Human PAK1-PBD
8631S	Anti-Rac1 Mouse Antibody (Non-hazardous)
11522S	GDP (100X) (Non hazardous)
11521S	GTP $\gamma$ S (100X)
11523S	Glutathione Resin
11525S	2X SDS Sample Buffer
11524S	Lysis/Binding/Wash Buffer

**4. FIRST AID MEASURES**

**Eye Contact**                            Rinse immediately with plenty of water. Get medical attention.  
**Skin Contact**                            Rinse immediately with soap and plenty of water. Get medical attention.  
**Inhalation**                                Move to fresh air. Get medical attention.  
**Ingestion**                                 Call Poison Control Center immediately. Never give anything by mouth to an unconscious person. Rinse mouth with water.  
     Get medical attention.

**Notes to physician**                    Treat symptomatically.

**5. FIRE FIGHTING MEASURES**

**Flash Point**                                See Section 9. Physical and Chemical Properties  
**Suitable Extinguishing Media**        Use dry chemical  
**Special exposure hazards**                No data available  
**Special protection for fire fighters**    Wear appropriate self-contained breathing apparatus and protective unit  
**Other information**                         No data available

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions**                 Do not touch or walk through spilled material. Wear personal protective equipment  
**Environmental precautions**            Do not let product enter drains.  
**Clean up methods**                        Soak up with absorbent material. Keep in suitable closed containers for disposal.  
**Other information**                         See sections 12 and 13 for additional information.

**7. HANDLING AND STORAGE**

<b>Safe handling advice</b>	Avoid contact with eyes and skin. Ensure adequate ventilation.
<b>Storage condition</b>	Keep container tightly closed in a cool dry location.
<b>Incompatibilities</b>	No data available
<b>Specific end uses</b>	No data available

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**
**Exposure Controls**

Apply technical measures to comply with the occupational exposure limits.

**Engineering Controls**

Emergency eyewash and safety shower. Mechanical exhaust required.

**Hygiene Measures**

Do not eat, drink or smoke when handling product. Wash hands thoroughly after handling product. Wash contaminated clothing before reuse.

**Personal Protective Equipment**

Respiratory Protection:	In case of insufficient ventilation wear suitable respiratory equipment.
Eye Protection:	Safety glasses with side shields
Skin and body protection:	Wear suitable protective clothing, protective shoes or boots.
Hand protection:	Compatible chemical resistant gloves.

**9. PHYSICAL AND CHEMICAL PROPERTIES**
**Information on basic physical and chemical properties**

Physical State	small vials of liquids and solids
Appearance	no data available
Odor	no data available
pH	no data available
Water Solubility	no data available
Melting point/freezing point	no data available
Boiling point	no data available
Evaporation rate	no data available
Flammability	no data available
Flash point	no data available
Autoignition temperature	no data available
Flammability limits in air	no data available
Explosive properties	no data available
VOC content	no data available
Decomposition temperature	no data available

**10. STABILITY AND REACTIVITY**

<b>Stability</b>	Stable under normal conditions
<b>Conditions/Materials to avoid</b>	No data available
<b>Hazardous decomposition products</b>	No data available

**11. TOXICOLOGICAL INFORMATION**
**Acute Toxicity**

To the best of our knowledge, the chemical, physical and toxicological properties have not been fully investigated.

**Potential Health Effects**
**Acute Toxicity**

Eyes	May cause eye irritation.
Skin	Harmful in contact with skin. Causes mild skin irritation. May cause allergic skin reaction.
Inhalation	Harmful if inhaled. Toxic by inhalation. Irritating to respiratory system.
Ingestion	May be harmful if swallowed.

**Chronic Effects**

Carcinogenic effects	No known significant effects or critical hazards.
Mutagenic effects	No known significant effects or critical hazards.
Teratogenic effects	No known significant effects or critical hazards.
Reproductive toxicity	No known significant effects or critical hazards.
Sensitization	May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Target organ effects**

Contains material that can cause damage to the following organs: kidneys, lungs, upper respiratory tract, skin, eyes, liver, gastrointestinal tract.

**12. ECOLOGICAL INFORMATION**
**Ecotoxicity**

The environmental impact of this product has not been fully investigated.

<b>Persistence and degradability</b>	Not available
<b>Bioaccumulation</b>	Not available
<b>Mobility</b>	Not available

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**13. DISPOSAL CONSIDERATIONS**

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**Waste Disposal Methods:** Dispose of in accordance with all applicable environmental laws and regulations.

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**14. TRANSPORT INFORMATION**

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<b>IATA</b>	Not regulated as dangerous goods
<b>DOT</b>	Not regulated as dangerous goods
<b>MEX</b>	Not regulated as dangerous goods

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**15. REGULATORY INFORMATION**

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**HCS Classification**

Toxic material  
Irritating material  
Sensitizing material  
Target organ effects

**International Inventories**

TSCA (8a) PAIR -  
EINECS/ELINCS-  
ENCS -  
IECSC -  
KECL -  
PICCS -  
AICS -  
NZIoC -

**U.S. Federal Regulations**

**SARA 302/304/311/312 hazardous chemicals:** See individual kit component MSDS documents.

**SARA 311/312 MSDS Distribution:** See individual kit component MSDS documents.

**U.S. State Regulations** See individual kit component MSDS documents.

**Canada** See individual kit component MSDS documents.

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**16. OTHER INFORMATION**

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**Revision date** 2012-06-22

**Revision Note** \*\*\*Indicates updated section

**Disclaimer**

The information provided on this material safety data sheet is to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as 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 material or in any process, unless specified in the text.

End of Material Safety Data Sheet