



Catalog # Aliquot Size

C02-39B-500

500 μ l

Ca²⁺/Calmodulin Solution II, 10x

Catalog # C02-39B

Lot # K4589-7

Product Description

10x stock solution used for assaying activity of calcium-calmodulin-activated protein kinase enzymes.

Formulation

Frozen solution of buffer containing: 50ng/ μ l Calmodulin, 4mM CaCl₂, 10mM Tris-HCl, pH7.2.

Storage and Stability

Store product at -20°C. For optimal storage, aliquot buffer into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.

Related Kinases

Ca²⁺/Calmodulin Solution II can be used in the following protein kinase assays.

Product Name	Catalog Number
CAMK1, Active	C07-10G
CAMK1 β , Active	C08-10G
CAMK1 γ , Active	C10-10BG, C10-11G
CAMK1 δ , Active	C09-10G
CAMK2 α , Active	C11-10G
CAMK2 β , Active	C12-10G, C12-10H
CAMK2 γ , Active	C14-10G, C14-10BG
CAMK2 δ , Active	C13-10G
CAMK4, Active	C15-10G
CAMKK1, Active	C17-10G, C17-18G
CASK, Active	C19-11G
DAPK1, Active	D01-11G
DAPK2, Active	D02-10G
EEF2K, Active	E01-10G
MLCK, Active	M62-11G
MYLK2, Active	M63-10H
MYLK3, Active	M64-10G
MYLK4, Active	M74-10G

Ca²⁺/Calmodulin Solution II, 10x

Catalog #

C02-39B

Lot #

K4589-7

Stability

1yr at -70°C from date of shipment

Storage & Shipping

Store product at -20°C. For optimal storage, aliquot buffer into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped frozen.

To place your order, please contact us by phone 1-866-9KINASE (54-6273), 1-(604)-232-4600, fax 1-604-232-4601 or by email: orders@signalchem.com - www.signalchem.com

FOR IN VITRO RESEARCH PURPOSES ONLY. NOT INTENDED FOR USE IN HUMAN OR ANIMALS.

SAFETY DATA SHEET

Article 1 - Product Identification

Product Name: Ca²⁺/Calmodulin Solution II, 10x

Catalog # C02-39B

This product is sold only for research use by qualified laboratory personnel, and is not to be used as a drug, medical device, food additive, cosmetic, nor household chemical. It is not to be used in diagnostic, therapeutic, consumer, agricultural, nor pesticidal applications.

Manufacturer's Name: SignalChem Biotech Inc.
 Street Address: 110-13120 Vanier Place
 City, Prov. Postal Code: Richmond, BC, V6V 2J2
 Fax: 604-232-4601
 EMERGENCY PHONE: 604-232-4600

Article 2 - Hazards Identification

- **WHMIS Classification:** Not WHMIS controlled.
- **GHS classification:** Not GHS classified.
- **Hazard Pictograms:** None.
- **Signal words:** None.
- **Hazard statements:** None identified
- **Precautionary statements:** None identified.
- **Other hazards:** None known.

Article 3 - Composition/Information on Ingredients

Common Name	Chemical Name/Formula	CAS-No.	Concentration
Tris-HCl; Tris (hydroxymethyl) aminomethane hydrochloride	2 - Amino - 2 - (hydroxymethyl) propane - 1, 3 - diol hydrochloride	1185-53-1	0.1576%
Calcium chloride	CaCl ₂	10043-52-4	0.0588%
Calmodulin	-	73298-54-1	0.005%

Article 4 - First-aid Measures

- **General information:** Consult a physician by providing the SDS.
- **After inhalation:** Breath in fresh air. If cannot breathe, give artificial respiration and consult a physician.
- **After skin contact:** Immediately wash with soap and plenty of water and rinse thoroughly. Consult a physician.
- **After eye contact:** Rinse opened eyes with plenty of water for at least 15 minutes. Consult a physician.
- **After swallowing:** Rinse the mouth with plenty of water and consult a physician.

Article 5 - Fire-fighting Measures

- **Suitable extinguishing media:** Use water spray, extinguishing powder, carbon dioxide, or other appropriate measure that is suitable to the environment.
- **Specific hazards arising from the substance or mixture:** None known.
- **Special protective equipment and precautions for fire-fighters:** Self-contained breathing apparatus if necessary.

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Article 6 – Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures:** Apply standard laboratory practices and personal protective equipment. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation.
- **Environmental precautions:** Do not allow to enter drains.
- **Methods and materials for containment and cleaning up:** Prevent further leakage or spillage if safe to do so. Use personal protective equipment as required. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Avoid creating dust. Clean contaminated surface thoroughly.

Article 7 - Handling and Storage

- **Precautions for safe handling:** Wear chemical safety goggles and compatible chemical-resistant gloves. Avoid inhalation, contact with eyes, skin or clothing.
- **Conditions for safe storage:** Keep container tightly closed in a dry and well-ventilated place.
Recommended storage temperature: -20 °C.

Article 8 - Exposure Controls/Personal Protection

- **Appropriate engineering controls:**
Apply adequate ventilation including mechanical exhaust or laboratory fume hood. Follow standard laboratory practices.
- **Individual protection measures:**
 - Respiratory protection:**
Ensure adequate ventilation, especially in confined areas.
 - Skin/body protection:**
Wear protective gloves and clothing. Use proper glove removal technique to avoid skin contact. Discard gloves after use by following the applicable laboratory regulations. Wash and dry hands.
 - Eye/face protection:**
Safety glasses with side-shields (or goggles) approved under appropriate government standards.
 - General hygiene considerations:**
Handle in accordance with good industrial hygiene and safety practice.

Article 9 – Physical and Chemical Properties

Appearance: Clear liquid.	Danger of explosion: No data available.
Odour/Odour Threshold: Not determined.	Explosion limits: No data available.
pH: No data available.	Decomposition temperature: No data available.
Melting point/freezing point: Not determined.	Vapor pressure at 20 °C: No data available
Boiling point/Boiling range: No data available	Density: No data available.
Flash point: No data available	Relative density: No data available.
Flammability (solid, gaseous): Not determined.	Vapor density: No data available.
Ignition temperature: No data available.	Evaporation rate: No data available.
Auto-igniting: No data available	Solubility in / Miscibility with Water: Fully miscible.

Article 10 - Stability and Reactivity

- **Reactivity:** Stable under recommended transport and storage conditions.
- **Chemical stability:** Stable under recommended transport and storage conditions.
- **Possible hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** No data available.
- **Incompatible materials:** No data available.
- **Hazardous decomposition products:** No data available.

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Article 11 - Toxicological Information

- **Acute toxicity:** Product does not present an acute toxicity hazard based on known or supplied information.
- **LD/LC50:** Not available.
- **Skin corrosion/irritation:** Not available.
- **Serious eye damage/eye irritation:** Not available.
- **Respiratory or skin sensitization:** Not available.
- **Germ cell mutagenicity:** Not available.
- **Carcinogenicity:** No components are listed in IARC, or NTP, or OSHA, or ACGIH.
- **Reproductive toxicity:** Not available.
- **Teratogenicity:** Not available.
- **Specific target organ toxicity - single exposure/ - repeated exposure (GHS):** Not available.
- **Aspiration hazard:** Not available.
- **Potential health effects:**
 - Inhalation:** May be harmful if inhaled. May cause respiratory tract irritation.
 - Ingestion:** May be harmful if swallowed.
 - Skin:** May be harmful if absorbed through skin. May cause skin irritation.
 - Eyes:** May cause eye irritation.
- **Signs and Symptoms of Exposure:** Not available.
- **Synergistic effects:** Not available.

Article 12 - Ecological Information

- **Eco-toxicity:** Not applicable.
- **Biodegradability:** Not applicable.
- **Bio-accumulative potential:** Not applicable.
- **Mobility in soil:** Not applicable.
- **PBT and vPvB assessment:** Not applicable.
- **Other adverse effects:** Not applicable.

Article 13 - Disposal Considerations

- **Disposal methods:** In accordance to applicable national, regional, or local laws and regulations. For additional handling information and protection of employees please refer to Article 7 and 8.
- **Contaminated packaging:** Disposal should be made in accordance to official regulations. Use water or cleansing agents to clean the area.

Article 14 - Transport Information

- **DOT:** Not dangerous goods.
- **IMDG:** Not dangerous goods.
- **IATA:** Not dangerous goods.

Article 15 - Regulatory Information

Safety, health, and environmental regulations/legislation specific for the substance or mixture.

Canadian substance listings:

- **WHMIS Classification:** Non-hazardous.
- **GHS label elements:** Not applicable.
- **Signal word:** Not applicable.
- **Hazard statements:** Not applicable.

Article 16 - Other Information

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. SignalChem shall not be held liable for any damage resulting from handling or from contact with the above product. See the Technical Specification, Packing Slip, Invoice, and Product Catalog for additional terms and conditions of sale.

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