

#9803 Store at -20°C

# Cell Lysis Buffer (10X)



Supplied as a 10X stock  
 15 ml

**Orders** ■ 877-616-CELL (2355)  
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rev. 11/15/11

This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

**Description:** Cell Lysis Buffer is used to lyse cells under nondenaturing conditions.

- 1X Cell Lysis Buffer:**  
 20 mM Tris-HCl (pH 7.5)  
 150 mM NaCl  
 1 mM Na<sub>2</sub>EDTA  
 1 mM EGTA  
 1% Triton  
 2.5 mM sodium pyrophosphate  
 1 mM β-glycerophosphate  
 1 mM Na<sub>2</sub>VO<sub>4</sub>  
 1 μg/ml leupeptin

**Directions for use:**

1. If buffer will be continually used, it is recommended that the 10x buffer be kept at 4°C for 1-2 weeks. For longer periods of time, buffer should be stored at -20°C. Aliquotting of 10x buffer is recommended if many small experiments are to be performed.
2. Thaw 10x buffer at 24-30°C, mixing end-over-end.
3. Dilute 10X Cell Lysis Buffer to a 1X solution using ddH<sub>2</sub>O. This product supplies enough 10X material to make 150 mls of whole cell extract.
4. Chill 1x buffer on ice and add PMSF just prior to use.

**Note:** CST recommends adding 1 mM PMSF immediately before use.

**Lysis:**

For lysis of adherent cells, we recommend the following: (all reagents and lysates must be kept cold)

1. Treat cells as desired.
2. Wash plate with PBS to remove residual media.
3. Add 400 μL of 1x lysis buffer/ 10 cm dish.
4. Incubate plate on ice for 5 minutes.
5. Scrape cells.
6. Sonicate briefly.
7. Spin extract 10 minutes at 14,000 x g in a cold microfuge.
8. Remove supernant for use.

**Additional notes:**

1. For non-adherent cells, add 400 μl of buffer per 10<sup>7</sup> cells once they have been washed in 1X PBS and pelleted.
2. 2X #9803 Cell Lysis Buffer can be used for lysis of tissue samples, although a homogenization step is recommended after adding lysis buffer. Extract the tissue at a ratio of 100 mg of tissue to 1 ml of buffer. Sonication of the tissue lysate is also required.
3. Additional protease inhibitors can be added to the 1x lysis buffer without any difficulties.

**Storage:** Store at -20°C. For short term storage (1-2 weeks), Cell Lysis Buffer can be stored at 4°C.

**Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.**

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**Applications Key:** W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide  
**Species Cross-Reactivity Key:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine  
 Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.

# Material Safety Data Sheet (MSDS) for Cell Lysis Buffer (10X)



## I. Identification:

**Product name:** Cell Lysis Buffer (10X)  
**Product Catalog:** 9803  
**CAS number:** Not applicable to mixtures  
**Manufacturer Supplier:** Cell Signaling Technology  
 3 Trask Lane  
 Danvers, MA 01923 USA  
 1-978-867-2300 TEL  
 1-978-867-2400 FAX  
 1-978-578-6737 Emergency Phone

## II. Composition/Information on Ingredients:

**This product is For Research Use Only.** According to 29 CFR 1910.1200(d), mixtures with hazardous ingredients at less than <1% and carcinogens at less than <0.1% are considered non-hazardous.

### Hazardous Reagent: 20X LumiGLO

Ingredient	Percent	CAS#
Triton X-100 (polyethylene glycol octylphenol ether)	1%	9002-93-1

## III. Hazard Identification:

!! CAUTION: This product is not for use in humans. It is intended for research purposes only. To the best of our knowledge, the chemical, physical, and toxicological properties of this material have not been established.

### Emergency Overview :

Harmful by Ingestion. Irritant.

### Potential Health Effects:

**Inhalation:** May be harmful if inhaled. Causes respiratory tract irritation.

**Eye Contact:** Causes eye irritation. Risk of damage to eyes.

**Skin Contact:** May be harmful if absorbed through skin. Causes skin irritation.

**Ingestion:** Harmful if swallowed.

## IV. First Aid Measures for hazardous ingredient:

### Triton X-100 (polyethylene glycol octylphenol ether):

**Inhalation:** Remove to fresh air. If breathing is difficult, get medical attention.

**Ingestion: DO NOT INDUCE VOMITING.** If person is conscious, wash out mouth with water. Get medical attention.

**Skin contact:** Wash skin with soap or mild detergent and water for at least 15 minutes. If irritation develops or persists, get medical attention.

**Eye contact:** Immediately flush eyes water for at least 15 minutes. Get medical attention.

## V. Fire Fighting Measures:

**Flash Point:** data not available

**Autoignition Temperature:** data not available

**Explosion:** data not available

**Fire extinguishing media:** water spray, dry chemical, foam, or carbon dioxide.

**Firefighting:** wear protective clothing and self-contained breathing apparatus to prevent contact with skin and eyes. May emit toxic fumes under fire conditions.

## VI. Accidental Release Measures:

Wear appropriate personal protective equipment as indicated in Section 8. Absorb liquid with an absorbent material. Transfer contaminated absorbent to a closed chemical waste container for disposal. Wash spill site after material has been picked up for disposal.

## VII. Handling And Storage:

Store at 4°C in tightly closed container.

Avoid inhalation of vapor or mist. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Avoid prolonged or repeated exposure.

## VIII. Exposure Controls/Personal

**Ventilation System:** a system of local (fume hood) and general exhaust is recommended.

**Skin Protection:** wear compatible chemical resistant gloves and protective clothing.

**Eye protection:** wear chemical safety goggles. Maintain emergency eyewash and shower in work area.

## IX. Physical and Chemical Properties

**Appearance:** colorless liquid

**Odor:** data not available

**pH:** data not available

**Boiling Point:** data not available

**Melting or Freezing Point:** data not available

**Flash Point:** data not available

**Volatile Organic Compounds (VOC):** data not available

**Autoignition temp.:** data not available

**Solubility (water):** Soluble in water

## X. Stability and Reactivity:

**Stability:** Stable under ordinary conditions.

**Conditions/materials to avoid:** strong oxidizing agents, strong acids, strong bases

**Hazardous Decomposition:** carbon monoxide, carbon dioxide.

**Hazardous polymerization:** will not occur

## XI. Toxicological Information:

**Acute toxicity:** data not available

**Chronic exposure:** data not available

### Potential Health Effects:

**Inhalation:** May be harmful if inhaled. Causes respiratory tract irritation.

**Skin:** May be harmful if absorbed through skin. Causes skin irritation.

**Eyes:** Causes eye irritation.

**Ingestion:** Harmful if swallowed.

## XII. Ecological Information:

Data not available

## XIII. Disposal Considerations:

Dispose of in accordance with federal, state and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

## XIV. Transport Information:

D.O.T. Proper Shipping Name: None. This substance is considered non-hazardous for transport.

IATA Proper Shipping Name: None. This substance is considered non-hazardous for air transport.

## XV. Regulatory Information:

EU: Not classified

OSHA: Ingredient Triton X100, CAS#9002-93-1: Harmful by ingestion, Irritant

Canadian DSL: Listed: Ingredient Triton X100, CAS#9002-93-1

SARA 302, 313 Ingredients Not Listed.

SARA 311/312: Ingredient Triton X100, CAS#9002-93-1: Acute Health Hazard

Massachusetts Right To Know: Ingredients Not Listed.

Pennsylvania Right To Know: Ingredient Triton X100, CAS#9002-93-1

New Jersey Right To Know: Ingredient Triton X100, CAS#9002-93-1

California Prop. 65: Ingredients Not Listed.

## XVI. Other Information:

This product is for research use only and is not intended for use in humans. To the best of our knowledge, this document is accurate. It is intended to serve as a guide for safe use of this product in a laboratory setting by experienced personnel. The burden of safe use of this material rests entirely with the user. The above information is believed to be accurate but is not necessarily all-inclusive and shall be used only as a guide. Cell Signaling Technology, Inc., shall not be held liable for any damage resulting from the handling of or from contact with the above product.