#9803
Store at –20°C

Cell Lysis Buffer (10X)

Supplied as a 10X stock
✓ 15 ml

Description: Cell Lysis Buffer is used to lyse cells under non-denaturing conditions.

1X Cell Lysis Buffer:
- 20 mM Tris-HCl (pH 7.5)
- 150 mM NaCl
- 1 mM Na₂EDTA
- 1 mM EGTA
- 2.5 mM sodium pyrophosphate
- 1 mM β-glycerophosphate
- 1 mM Na₃VO₄
- 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 ddH₂O. 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.
7. Spin extract 10 minutes at 14,000 x g in a cold microfuge.
8. Remove supernatant for use.

Additional notes:
1. For non-adherent cells, add 400 µl of buffer per 10⁷ 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.
4. Aggregation may be present in this buffer upon arrival due to the high concentrations of reagents included at the supplied 10X formulation. At times, the aggregation persists despite warming to room temperature. We recommend warming the buffer to 37°C for 15 minutes and mixing to help eliminate the precipitate. Alternatively, diluting the 10X buffer with ddH₂O to at least 5X, warming to 37°C and mixing for 15 minutes will yield a precipitate-free solution. Once diluted, it can be aliquoted and stored at -20°C for future use. Note: If dilution is necessary, we recommend rinsing the 10X buffer bottle several times to ensure all of the precipitates have been captured.

Storage: This product is stable for 24 months when stored at -20°C. Cell Lysis Buffer can be stored at 4°C for a short period of time (1-2 weeks).

Please visit www.cellsignal.com for a complete listing of recommended companion products.

For Research Use Only. Not For Use In Diagnostic Procedures.

Section 1. Identification

Product identifier:

Product No. 9803
Product name: Cell Lysis Buffer (10X)
Other names or synonyms: 

Recommended use of the chemical and restrictions on use

Use for research purposes only. This product is not intended for use in human or animal procedures.

Control parameters

Odor
No information available.

Appearance
No information available.

Physical state
No information available.

Vapor pressure
No information available.

Initial boiling point and boiling range
No information available.

Flash point
No information available.

Evaporation rate
No information available.

Upper flammability limit
No information available.

Lower flammability limit
No information available.

Vapor pressure
No information available.

Vapor density
No information available.

Odor
No information available.

Solubility
No information available.

Sensitivity to mechanical impact
No information available.

Sensitivity to static discharge
No information available.

Oxidizing properties
No information available.

Explosive properties
No information available.

VOC content
No information available.

Volatile organic compounds (VOCs)
No information available.

Solubility
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Vapor pressure
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Sensitivity to static discharge
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SECTION 11. Toxicological information

Information on likely routes of exposure

Inhalation: There is no data available for this product.
Eye contact: 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.
Skin contact: There is no data available for this product.
Ingestion: There is no data available for this product.

Information on toxicological effects

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.

Incompatibility Materials

Strong oxidizing agents, strong acids, and strong bases.

Possibility of hazardous reactions

None under normal processing.

Toxicity to the aquatic environment

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

SARA 313 Risk Management Planning

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 313/312 Hazard Categories

Acute Health Hazard: Yes
Chronic Health Hazard: No
Fire 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).

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated as pesticides.

SECTION 13. Disposal considerations

Waste Disposal Methods

Dispose of in accordance with all applicable national environmental laws and regulations.

Disposal considerations

Do not empty into drain; dispose of this material and its container in a safe way.

All of the components in the product are on the following inventory list.

- TSCA
- DSC
- NCISL
- Complex

SECTION 14. Transport information

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

SECTION 15. Regulatory information

All of the components in the product are on the following inventory list.

- TSCA
- DSC
- NCISL
- Complex

SECTION 16. Other information

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 test.

End of Safety Data Sheet