

## Cell Lysis Buffer (5X) (Catalog# TBS5001)

**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 Na<sub>2</sub>EDTA  
1 mM EGTA  
1% Triton  
2.5 mM sodium pyrophosphate  
1 mM b-glycerophosphate  
1 mM Na<sub>3</sub>VO<sub>4</sub>  
1 µg/ml leupeptin

**Directions for Use:**

1. Aliquotting of 5x buffer is recommended if many small experiments are to be performed. For longer periods of time, buffer should be stored at -20°C. If buffer will be continually used, it is recommended that the 5x buffer be kept at 4°C for 1-2 weeks.
2. Thaw 5x buffer at room temperature, mixing end-over-end.
3. Dilute 5X Cell Lysis Buffer to a 1X solution using ddH<sub>2</sub>O. This product supplies enough 5X material to make 200 mls of whole cell extract.
4. Chill 1x buffer on ice and add PMSF (final 1 mM) just prior to use.

**Storage:** Supplied as a 5X solution, 40 mL. 100mM PMSF, 1 mL. Store at -20°C. For short-term storage (1-2 weeks), Cell Lysis Buffer can be stored at 4°C.

**This product is for *in vitro* research use only and is not intended for use in humans or animals.**

**This product is not intended for use as a therapeutic or in diagnostic procedures.**

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

**Lysis Procedure:**

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 cold 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 4°C.
8. Remove supernatant 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 Cell Lysis Buffer can be used for lysis of tissue samples, homogenization or Sonication of the tissue lysate is required. 1 mg of tissue add 0.1 ml of Lysis buffer.
3. Additional protease inhibitors can be added to the 1x lysis buffer without any difficulties.

**RELATED PRODUCTS:**

PBS-1x (catalog# TBS5003)  
BSA Standard solution (catalog# TBS5002)  
Protein Assay kit (catalog# TBS2005)  
RIPA Buffer (catalog# TBS5017)

**Material Safety Data Sheet (MSDS)****Identification:****Product name:** Cell Lysis Buffer(5X)**Product Catalog:** TBS5001**Manufacturer Supplier:**4062 Fabian Way, suite 1, Palo Alto,  
CA 94303 USA

1-650-917-9269 TEL

1-650-618-5498 FAX

**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.

<b>Ingredient Name</b>	<b>CAS#</b>	<b>Percent</b>
Triton X-100	9002-93-1	1%

**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.**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 with water for at least 15 minutes. Get medical attention.**Accidental Release Measures:**

Wear appropriate personal protective equipment as indicated. 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.

**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.

**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.

**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:** data not available**Autoignition temp:** data not available**Solubility (water):** Soluble in water**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.**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.

**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. Tribioscience, Inc., shall not be held liable for any damage resulting from the handling of or from contact with the above product.