

# Cell Lysis Buffer (10X)



Supplied as a 10X stock  
15 ml

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

**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. Aliquoting 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.
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 ddH<sub>2</sub>O 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](http://www.cellsignal.com) for a complete listing of recommended companion products.**