Product Datasheet

Cell lysis buffer (10x)

For research use only.

Product	Catalog number
Cell lysis buffer (10x), 10 ml	BSM001
Cell lysis buffer (10x), 100 ml	BSD001

Product Description

Cell Lysis Buffer (10x) is a high-quality, ready-to-use cell lysis solution for total protein extraction from cultured eukaryotic (mammalian and insect) cells. The buffer uses detergent-based lysis, eliminating the need for mechanical cell disruption, providing a milder and easier alternative when isolating proteins from cell cultures. It efficiently lyses cultured cells, such as adherent cultures and suspension cells in pellet form. The popular chemical aids in the extraction of membrane, nuclear, and cytoplasmic proteins and is useful for a variety of applications such as ELISA, western blotting, protein purification, BCA Protein Assay, and immunoassays. This cell lysis buffer formulation is compatible with any protease inhibitor cocktail that must be added before usage to avoid proteolysis and maintain protein phosphorylation.

Solutions and Reagents

Product Composition: Tris-HCl (pH=7,5), NaCl, EDTA, Triton X-100.

Description

Cell lysis buffer suitable for use in ELISA and western blotting.

Storage

This product is stable for 24 months when stored at -20°C. Cell Lysis Buffer can be stored at 2-8°C for a short period of time (1-2 weeks).

Product Usage Information

1. If buffer will be used continuously, it is recommended that the 10x buffer be kept at 2-8°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 by rotating the tube.
3. Dilute 10x Cell Lysis Buffer to a 1x solution using ddH2O.

Lysis Protocol

Note: This cell lysis buffer must be supplemented with protease inhibitor cocktail (not included) just prior to use.

For the protease inhibitor cocktail addition, we recommend Thermo Scientific Halt™ Protease Inhibitor Single-Use Cocktail (100X), Cat. No. 78425 and 78430. The stability of protease inhibitor supplemented cell lysis buffer is 24 hours at 4°C.

All reagents and lysates must be kept cold.

1. Collect cells in PBS by centrifugation (non-adherent) or scraping from culture flasks (adherent).
2. Wash cells twice with PBS to remove any residual media.
3. Remove and discard the supernatant and collect the cell pellet.
4. Add 100 µL of 1x cell lysis buffer per $1x10^6$ cells and lyse the cell pellet for 30 minutes with shaking at 4ºC.
5. Transfer the extract to microcentrifuge tubes and centrifuge at 13,000 rpm for 10 minutes at 4°C.
6. Aliquot the clear lysate to clean microcentrifuge tubes. These samples are ready for assay. Lysates can be stored at -80°C. Avoid multiple freeze/thaws.

Additional notes:

1. For non-adherent cells, add 400 µl of buffer per 10^7 cells once they have been washed in 1x PBS and pelleted.

2. 2x 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.

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