

ReadiPrep™ Histone Extraction Kit

Catalog number: 60208
Unit size: 100 Tests

Component	Storage	Amount (Cat No. 60208)
Component A: ReadiPrep™ Prelysis Buffer	Refrigerated (2-8 °C)	1 bottle (20 mL)
Component B: ReadiPrep™ Lysis Buffer	Refrigerated (2-8 °C)	1 bottle (20 mL)
Component C: ReadiPrep™ Balance Buffer	Refrigerated (2-8 °C)	1 vial (15 mL)
Component D: DTT solution	Freeze (< -15 °C)	1 vial (50 µL)

OVERVIEW

ReadiPrep™ Histone Extraction Kit is designed for the rapid and efficient isolation of total histone proteins from cell samples. This streamlined protocol requires no specialized equipment and purifies histones in less than 2 hours, making it ideal for high-throughput analysis.

The kit separates cytoplasmic and histone fractions through sequential lysis and centrifugation steps, with an optimized buffer system that ensures effective histone solubilization. The extracted histones are suitable for a variety of downstream applications, including Western blotting for post-translational modifications and histone variant analysis. ReadiPrep™ Histone Extraction Kit ensures consistent, high-quality results and is an essential tool for researchers studying chromatin biology, gene regulation, or epigenetic modifications.

AT A GLANCE

1. Add ReadiPrep™ Prelysis Buffer to cell pellet and incubate for 15 minutes on ice.
2. Centrifuge the cells at 13000 rpm for 15 minutes.
3. Collect the supernatant and label as "Cytoplasmic" fraction.
4. Add ReadiPrep™ Lysis Buffer to cell pellet and sonicate the sample.
5. Incubate the mix for 60 minutes on ice.
6. Centrifuge the cells at 13000 rpm for 15 minutes.
7. Collect the supernatant and add ReadiPrep™ Balance Buffer with DTT and label as "Histone" fraction.

Important: Check the buffers to see if they contain salt precipitates before use. If so, warm at room temperature or 37°C and shake the buffer until the salts are re-dissolved.

PREPARATION OF WORKING SOLUTION

Prepare ReadiPrep™ Balance Buffer working solution by adding 10 µL of DTT solution (Component D) into 10 mL of ReadiPrep™ Balance Buffer (Component C).

Note We recommend making the ReadiPrep™ Balance Buffer working solution fresh as per need. Storing the ReadiPrep™ Balance Buffer working solution at <-15 °C may cause precipitation.

SAMPLE EXPERIMENTAL PROTOCOL

1. Harvest cells and pellet the cells by centrifugation at 1000 rpm for 5 minutes.
2. Resuspend the cells in 200 µL of ReadiPrep™ Prelysis Buffer and lyse the cells on ice for 15 minutes.
Note: It is recommended to use 10⁷ cells for the volume indicated above. For optimal extraction, cell number must be optimized with indicated buffer volume.
3. Centrifuge the cells at 13000 rpm for 15 minutes.

4. Collect the supernatant. The supernatant will contain the cytoplasmic fraction.
5. Resuspend the remaining cell pellet in 150 µL of ReadiPrep™ Lysis Buffer and vortex the sample.
6. Sonicate the samples at 30% power for 15 seconds.
7. Incubate the sample on ice for 60 minutes.
8. Centrifuge the cells at 13000 rpm for 15 minutes.
9. Collect the supernatant and add 90 µL of ReadiPrep™ Balance Buffer working solution.
10. Aliquot and store the histone extract at -20 °C for several days or -80 °C for long-term storage. Avoid repeated thawing and freezing cycles.

EXAMPLE DATA ANALYSIS AND FIGURES

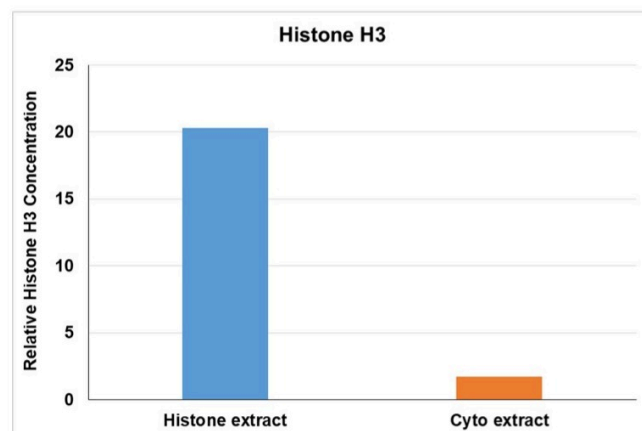


Figure 1. SDS-PAGE analysis of histone extracts collected from HeLa cells with ReadiPrep™ Histone Extraction kit (Cat# 60208). Normalized levels of Histone H3 to tubulin levels in histone and cytoplasmic fractions were shown.

DISCLAIMER

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