

**HiPurA<sup>®</sup> Mammalian Protein Extraction Reagent**

<b><u>Product Name</u></b>	<b><u>Product Code</u></b>	<b><u>Kit Packing</u></b>
HiPurA <sup>®</sup> Mammalian Protein Extraction Reagent	ML206-25ML	25ml
	ML206-250ML	250ml
	ML206-1000ML	1000ml

**Intended Use:**

Recommended for extraction of Protein from cultured Mammalian cells

**Introduction :**

The HiMedia's Mammalian Protein Extraction Reagent is designed to provide highly efficient total soluble protein extraction from cultured mammalian cells. The protocol is rapid and reagent enables efficient lysis of cells which permit easy extraction of cytoplasmic and nuclear protein. The reagent is formulated for minimal interference with downstream biological applications. The reagent has been tested for use with several cell lines, including primary, suspension and adherent cell types.

**Description:**

The HiPurA<sup>®</sup> Mammalian Protein extraction reagent effectively break the protein bonds while maintaining the native state and charge of the individual proteins which makes the reagent useful for a variety of purposes, such as: chromatography; different types of electrophoresis and many downstream assays.

**Application:**

HiPurA<sup>®</sup> Mammalian Protein Extraction Reagent is compatible with most applications, including enzyme assays, various chromatography procedures, and electrophoresis. After preparation the resulting cell lysates are compatible with many downstream assays including immunoassays (SDS-PAGE, Western, ELISA, RIA etc.), enzyme assays (caspase activity etc.) and a variety of common reporter assays (Luciferase Assay,  $\beta$ -galactosidase, Chloramphenicol acetyltransferase), protein assays such as Coomassie Blue Bradford and the BCA Protein Assays.

**Composition:**

HiPurA<sup>®</sup> Mammalian Protein Extraction reagent contains a proprietary detergent in 20mM Bicine buffer (pH 7.6).

**Properties:**

- Appearance/ Color/ Clarity : Colorless clear solution and free of particles
- pH : 7.5-7.7
- DNase & RNase : None detected
- Suitability Test : This product is suitable for use in extraction of proteins from mammalian cells

**Storage Conditions:**

HiPurA® Mammalian Protein Extraction Reagent can be stored at room temperature (15-25°C). Under recommended condition, the reagent is stable for 6 months.

**Material needed but not provided:**

- Protease Inhibitor Cocktail (Product Code: ML051)
- Monolayer Cultured Mammalian Cells / Suspension Cultured Mammalian Cells.
- 1X PBS Solution (Product Code: ML116) / 10X PBS Solution (Product Code: ML023)
- Centrifuge Tubes
- Refrigerated Centrifuge

**Protocol:**

**Note:** The reagent is filter sterilized and should be open under aseptic conditions.

**For Lysis of Monolayer Cultured Mammalian cells**

1. Carefully remove the culture medium from adherent cells.  
**NOTE :** if the culture medium contains phenol red or other reagents that may interfere with subsequent protein analysis, wash cells once with PBS.
2. Add the appropriate amount of Mammalian protein extraction reagent to the plate or to each plate well according to **Table 1**.  
**NOTE:** HiMedia’s Mammalian protein extraction reagent does not contain protease inhibitors. If desired, add Protease Inhibitor Cocktail (Product Code: ML051).

**Table 1.** Suggested volume of Mammalian protein extraction reagent to use for different sizes of Standard culture plates.

Size / Surface area of culture plate	Mammalian Protein extraction reagent Volume
100mm*	500-1000 µL
60 mm	250-500 µL
6-well plate	200-400 µL per well
24-well plate	100-200 µL per well
96-well plate	50-100 µL per well

\* Typically, 100mm plates have a cell density of 10<sup>7</sup> cells (50mg) and yield of approximately 3mgs of total protein depending on the cell types.

3. Incubate for 10 minutes in cold conditions with gentle agitation or rotation.
4. Collect the lysate and transfer to a micro centrifuge tube. Centrifuge samples at ~ 14,000 x g for 5-10 minutes at 4°C to pellet the cell debris.
5. Transfer the supernatant to a fresh tube for further analysis.

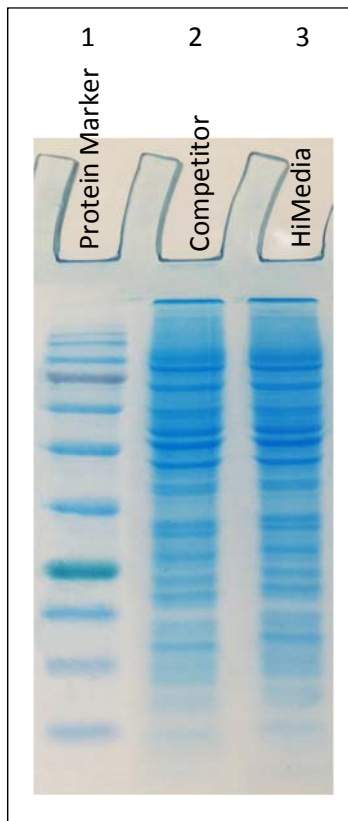
### For Lysis of Suspension - Cultured Mammalian cells

1. Pellet the suspension of cells by centrifugation at 2500 x g for 10 minutes 4°C. Discard the culture medium.
2. **Optional Wash:** If the culture medium contains phenol red or other reagents that may interfere with subsequent protein analysis, wash cells once with PBS. Pellet the washed cells by centrifugation at 2500 x g for 10 minutes 4°C. Discard the supernatant.
3. Add HiMedia's Mammalian protein extraction reagent to the cell pellet. Use 1ml of reagent for each 100mg (~100 µl) of wet cell pellet. If larger amounts of cells are used, first add 1/10 the final recommended volume of reagent and resuspend the cell pellet by pipetting. Add the remaining amount of reagent to the cell suspension.

**NOTE:** HiMedia's Mammalian protein extraction reagent does not contain protease inhibitors. If desired, add Protease Inhibitor Cocktail (Product Code: ML051).

4. Shake mixture gently for 10 minutes. Remove cell debris by centrifugation at ~ 14,000 x g for 15 minutes at 4°C.
5. Transfer the supernatant to a fresh tube for further analysis.

### Data:



Well No	Samples
1	Prestained Protein Ladder
2	Mammalian cell extract using competitor reagent
3	Mammalian cell extract using HiMedia's Mammalian tissue extraction reagent

**Fig :** SDS-PAGE Gel image representing Mammalian cell protein extraction using suspension cultured mammalian cells.

## Troubleshooting:

Problem	Cause	Solution
Low Protein Yield	Low protein expression	Optimize transfection procedure
	Insufficient amount of reagent or less incubation time for cell lysis	Add more reagent and increase incubation time and shake more vigorously during incubation
Degraded Protein	Protease contamination	Add Protease Inhibitor cocktail to the reagent prior to use

## Warning and Precautions

Not for Medicinal Use. Read the SDS carefully before beginning the protocol. Guanidine hydrochloride causes severe irritation to eyes and skin. Wear protective gloves/protective clothing/eye protection/face protection. Follow good clinical laboratory practices while handling clinical samples. Standard precautions should be followed as per established guidelines. Safety guidelines may be referred in safety data sheets of the product.

## Performance and Evaluation

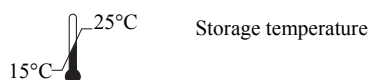
Performance of the solution is expected when the solution is stored at recommended temperature and within the expiry period.

## Safety Information

The Mammalian protein extraction reagent is for laboratory use only, not for drug, household or other uses. Take appropriate laboratory safety measures and wear gloves and safety goggles when handling. Not compatible with disinfecting agents containing bleach. Please refer the Safety Data Sheet (SDS) for information regarding hazards and safe handling practices.

## Technical Assistance

At HiMedia we pride ourselves on the quality and availability of our technical support. For any kind of technical assistance, mail at [mb@himedialabs.com](mailto:mb@himedialabs.com).



Do not use if package is damaged



HiMedia Laboratories Private Limited,  
Reg. Off: Plot No. C-40, Road No. 21Y,  
MIDC, Wagle Industrial Area, Thane,  
(West) 400604, Maharashtra, INDIA.  
Web: [www.himedialabs.com](http://www.himedialabs.com)



07/2026

PIML206\_0/0723

ML206-03

## Disclaimer :

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related HiMedia™ publications. The information contained in this publication is based on our research and development work and is to the best of our knowledge true and accurate. HiMedia™ Laboratories Pvt Ltd reserves the right to make changes to specifications and information related to the products at any time. Products are not intended for human or animal or therapeutic use but for laboratory, diagnostic, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.

HiMedia Laboratories Pvt. Ltd. Reg.office : Plot No. C-40, Road No. 21Y, MIDC, Wagle Industrial Area, Thane, (West) 400604, Maharashtra, INDIA.  
Customer Care No.: 00-91-22-6116 9797 Tel: 00-91-22-6147 1919, 6903 4800 Email: [techhelp@himedialabs.com](mailto:techhelp@himedialabs.com) Website: [www.himedialabs.com](http://www.himedialabs.com)