

***Mycobacterium bovis*, Strain AF 2122/97 (ATCC® BAA-935™), Cell Membrane Fraction**

**Catalog No. NR-31214**

This reagent is the tangible property of the U.S. Government.

**Product Description:** NR-31214 is a preparation of the cell membrane fraction of *Mycobacterium bovis*, strain AF 2122/97 (ATCC® BAA-935™), and contains the cytoplasmic membrane and components of the outer lipid layer.

**Lot<sup>1</sup>: 61056059**

**Manufacturing Date: 16MAY2012**

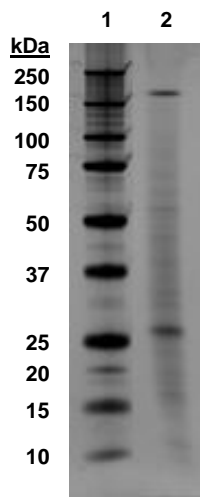
TEST	SPECIFICATIONS	RESULTS
SDS-PAGE and Silver Stain <sup>2</sup>	Report results	Visible smear of cell membrane proteins (Figure 1)
Concentration by Bicinchoninic Acid Protein Assay <sup>2,3</sup>	Report results	1.09 µg/µL

<sup>1</sup>Production and QC testing were performed by Colorado State University (CSU). The CSU documentation for lot 12.BAA935.2.13.5.MEM is attached.

<sup>2</sup>Retesting of NR-36501 lot 61449188 was performed by BEI Resources in July 2018 to confirm product stability.

<sup>3</sup>Using BSA as a standard

**Figure 1: SDS-PAGE and Silver Stain**



Lane 1: Precision Plus Protein™ Standard

Lane 2: NR-31214 lot 61056059, 1 µg

/Heather Couch/

Heather Couch

Program Manager or designee, ATCC Federal Solutions

30 NOV 2018

ATCC®, on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected to the tests and procedures specified and that the results described, along with any other data provided in this certificate, are true and accurate to the best of ATCC®'s knowledge.

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**BEI Resources**

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WORK SHEET FOR MEMBRANE

General Information

Product Lot Number: 12.BAA935.2.13.5.MEM  
Species: Mycobacterium bovis  
Strain: BAA935

Sonication and Fractionation Information

Starting material (lot #): 12.BAA935.2.13.5.WCg  
Cell amount (wet weight): 24.8g  
SOP #: PP008.1 Notebook pages: Rachel Hazenfield Protein 1 pp.20-21  
Date of French Press Sonication: 05/09/2012 ; Buffer used: PBS-EDTA with protease inhibitor  
Centrifugation Notes Centrifuged at 100,000 x g to recover from cytosol  
Date 10 mM ammonium bicarbonate dialysis started: 5/14/2012  
date completed: 5/16/2012  
Notebook; page(s): Rachel Hazenfield Protein 1 pg.20

Quality Control Information

Clarity of product/suspension after dialysis: Milky-beige (normal)  
BCA: 1.138  $\mu\text{g}/\mu\text{l}$ . Notebook and page(s): Rachel Hazenfield Protein 1 pg.21  
Total volume: 55.4 ml Total amount of Protein: 63 mg  
Silver Stain Date: 05/17/2012 . Notebook and page(s): Rachel Hazenfield Protein 1 pp.20-21

QC Gel:



Aliquot Information:

63 x 1 mg

Rachel Hazenfield 6/18/12  
(Research Associate) (date)

[Signature] 6/18/2012  
(Laboratory Supervisor) (date)