

**Mpt64, Recombinant Protein Reference Standard**

**Catalog No. NR-49435**

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

**Product Description:**

NR-49435 is a recombinant form of the secreted immunogenic protein Mpt64 (also referred to as mpb64) from *Mycobacterium tuberculosis*. The recombinant protein was expressed in *Escherichia coli* (*E. coli*) BL21 (DE3) pLysS cells and purified by immobilized-metal affinity chromatography. Mpt64 was harvested and purified from *E. coli* BL21 (DE3) pLysS cells transformed with BEI Resources NR-13273 lot 03.EC.08.26. Quality control testing was performed on vial, lyophilized material reconstituted with 340 µL 10 mM ammonium bicarbonate per vial.

**Lot: 70043621**

**Manufacturing Date: 26JUL2021**

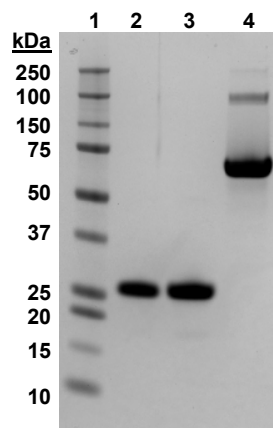
TEST	SPECIFICATIONS	RESULTS
<b>Appearance</b>	Report results	Not determined
<b>SDS-PAGE (Coomassie Blue Stain)</b>	Dominant band ~ 25 kDa > 90% pure	Dominant band of ~ 25 kDa accounts for 99.2% of total staining intensity (Figure 1)
<b>Concentration by Bicinchoninic Acid Protein Assay<sup>1</sup></b>	Report results	0.8 mg per mL
<b>Final Product</b> Quantity per vial Volume per vial	Report results Report results	0.278 mg 340 µL
<b>Western Blot Analysis</b> Monoclonal anti-histidine tag <sup>2</sup>	Reactive	Reactive (Figure 2)
<b>Endotoxin Content</b> Limulus Amoebocyte Lysate Assay <sup>3</sup>	1 to 10000 EU per mg	29.1 EU per mg protein
<b>Sterility</b>	0.2 µm sterile-filtered	0.2 µm sterile-filtered

<sup>1</sup>Using bovine serum albumin (BSA) as a standard

<sup>2</sup>Anti-histidine monoclonal antibody (Takara Bio, Inc., 631212) (1:1000 dilution)

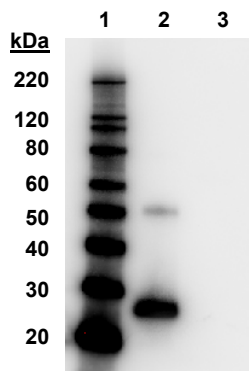
<sup>3</sup>Endosafe® PTS Cartridge (Charles River Laboratories, Inc., PTS2005F)

**Figure 1: SDS-PAGE of Mpt64**



Lane 1: Precision Plus Protein™ All Blue Protein Standard  
 Lane 2: NR-49435, 2 µg  
 Lane 3: NR-49435, 4 µg  
 Lane 4: BSA, 4 µg

Figure 2: Western Blot with Monoclonal Anti-Histidine Tag



Lane 1: MagicMark™ XP Protein Standard

Lane 2: NR-49435, 1 µg

Lane 3: BSA, 1 µg

/Heather Couch/

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