

CFP-10, Recombinant Protein Reference Standard

Catalog No. NR-49425

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Product Description:

NR-49425 is a recombinant form of the culture filtrate antigen CFP-10 from *Mycobacterium tuberculosis*. The recombinant protein consists of the native protein sequence in addition to a hexa-histidine tag (predicted molecular weight ~ 14.4 kDa). The recombinant protein was expressed in *Escherichia coli* (*E. coli*) BL21 (DE3) pLysS cells and purified by immobilized-metal affinity chromatography.

Lot: 70023891¹

Manufacturing Date: 15AUG2019

| TEST | SPECIFICATIONS | RESULTS |
|---|---|---|
| Appearance | Report results | Lyophilized |
| SDS-PAGE | Protein band of interest represents > 90% of total staining intensity | Dominant band of ~ 14 kDa accounts for > 90% of total staining intensity (Figure 1) |
| Concentration by Bicinchoninic Acid Protein Assay² | Report results | 1.02 mg per mL |
| Final Product Quantity per vial Volume per vial | Report results Report results | 1.02 mg 1 mL |
| Western Blot Analysis Polyclonal anti-CFP-10 ³ Monoclonal anti-histidine tag ⁴ | Reactive Reactive | Reactive (Figure 2) Reactive (Figure 3) |
| Endotoxin Content Limulus Amoebocyte Lysate Assay ⁵ | Report results | < 4.9 EU/mg protein |
| Filtration | 0.2 µm sterile-filtered | 0.2 µm sterile-filtered |

¹CFP-10 was harvested and purified from *E. coli* BL21 (DE3) pLysS cells transformed with BEI Resources NR-13297 lot 59415499.

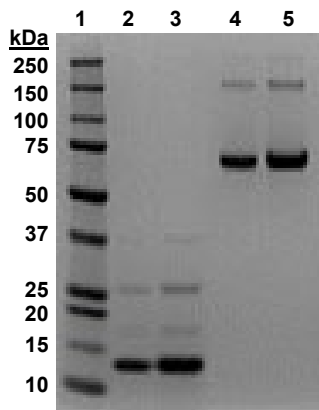
²Using BSA as a standard

³Polyclonal Anti-*Mycobacterium tuberculosis* CFP-10 (antiserum, Rabbit) (BEI Resources NR-13801) (1:10,000 dilution)

⁴His Tag Antibody (R&D Systems, MAB050) (1:1,000 dilution)

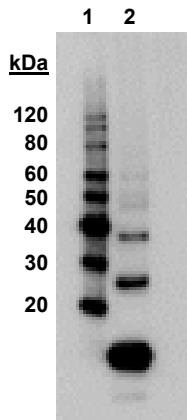
⁵Charles River Endosafe®-PTS Endotoxin Testing System (Charles River, PTS200SF)

Figure 1: SDS-PAGE and Silver Stain



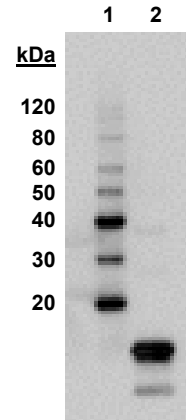
Lane 1: Precision Plus Protein™ Standard
 Lane 2: NR-49425 lot 70023891, 1 µg
 Lane 3: NR-49425 lot 70023891, 2 µg
 Lane 4: BSA, 1 µg
 Lane 5: BSA, 2 µg

Figure 2: Western Blot with Polyclonal Anti-*Mycobacterium tuberculosis*



Lane 1: MagicMark™ XP Protein Standard
Lane 2: NR-49425 lot 70023891, 1 µg

Figure 3: Western Blot with Monoclonal Anti-Histidine Tag



Lane 1: MagicMark™ XP Protein Standard
Lane 2: NR-49425 lot 70023891, 1 µg

/Heather Couch/
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Program Manager or designee, ATCC Federal Solutions

21 OCT 2019

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