

CFP-10, Recombinant Protein Reference Standard

Catalog No. NR-49425

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

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.

Lot¹: 70007131

Manufacturing Date: 02NOV2017

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	1.93 mg per mL
Final Product Quantity per vial Volume per vial	Report results Report results	1.93 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)	Report results	< 3.904 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)

⁴6x-His tag monoclonal antibody (R&D Systems, MAB050) (1:1,000 dilution)

12 FEB 2018

Program Manager or designee, ATCC Federal Solutions

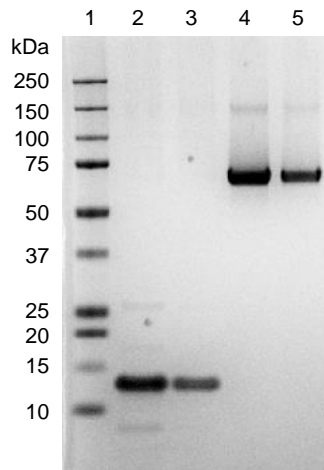
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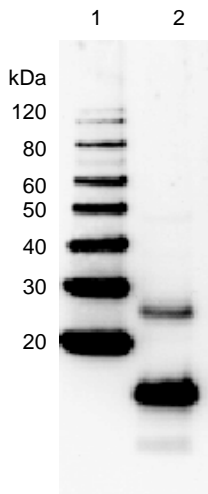


Figure 1: SDS-PAGE of CFP-10



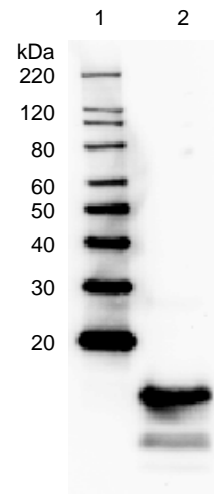
Lane 1: Precision Plus Protein™ All Blue Protein Standard
 Lane 2: NR-49425, 2 µg
 Lane 3: NR-49425, 1 µg
 Lane 4: BSA, 2 µg
 Lane 5: BSA, 1 µg

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



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

Figure 3: Western Blot with Monoclonal Anti-Histidine Tag



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