

Certificate of Analysis for NR-49425

CFP-10, Recombinant Protein Reference Standard

Catalog No. NR-49425

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: 64242548 Manufacturing Date: 25MAY2016

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 Assay ²	Report results	1.51 mg per mL
Final Product Quantity per vial Volume per vial	Report results Report results	2.11 mg 1.40 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	< 1.85 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.

Date: 01 AUG 2016

Signature:

BEI Resources Authentication

ATCC®, on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected by 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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²Using BSA as a standard

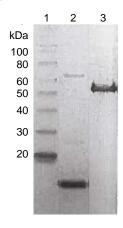
³Rabbit anti-CFP-10 polyclonal antibody (BEI Resources, NR-13801) (1:10000 dilution)

⁴6xHis tag monoclonal antibody (R&D Systems, MAB050) (1:1000 dilution)



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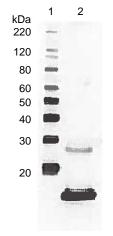
Figure 1: SDS-PAGE of CFP-10



Lane 1: MagicMark™ XP Protein Standard

Lane 2: NR-49425, 2.0 μg Lane 3: BSA, 1.0 μg

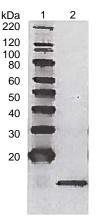
Figure 2: Western Blot with Polyclonal Anti-CFP-10



Lane 1: MagicMark™ XP Protein Standard

Lane 2: NR-49425, 1.0 μg

Figure 3: Western Blot with Monoclonal Anti-Histidine Tag



Lane 1: MagicMark™ XP Protein Standard

Lane 2: NR-49425, 1.0 µg