

HspX, Recombinant Protein Reference Standard

Catalog No. NR-61723

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

Product Description:

NR-61723 is a recombinant form of the heat shock protein HspX (also referred to as α -crystallin) from *Mycobacterium tuberculosis*. The recombinant protein consists of the native protein sequence in addition to a hexa-histidine tag. The recombinant protein was expressed in *Escherichia coli* BL21 (DE3) pLysS cells transformed with BEI Resources NR-49428 lot 70044698 and purified by immobilized-metal affinity chromatography. NR-61723 is provided in Phosphate Buffered Saline (PBS), pH 7.4

Lot: 70081897

Manufacturing Date: 01MAY2026

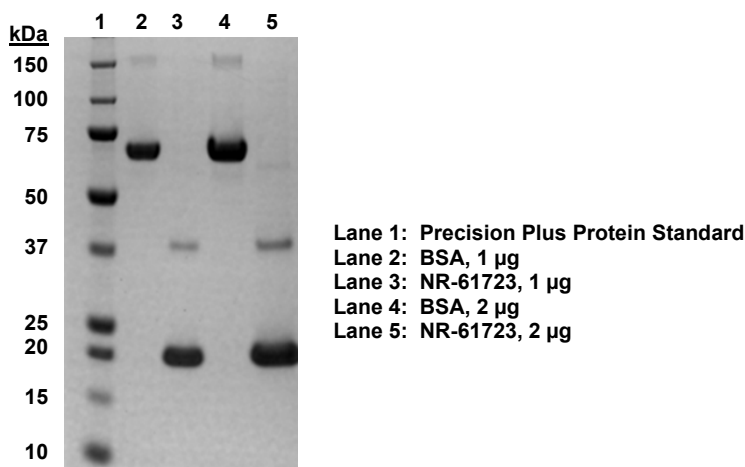
TEST	SPECIFICATIONS	RESULTS
Appearance	Report results	Clear
SDS-PAGE (Coomassie Blue Stain)	Protein bands of interest represent > 90% of total staining intensity	Protein bands of interest account for 85.9% (~ 20 kDa dominant band) and 14.1% (minor band of ~ 60 kDa) of total staining intensity (Figure 1)
Concentration by Bicinchoninic Acid Assay Bovine Serum Albumin (standard)	Report results	0.532 mg/mL
Final Product Quantity per vial Volume per vial	Report results Report results	0.176 mg 330 μ L
Western Blot Analysis Monoclonal anti-HspX ¹ Monoclonal anti-histidine tag ²	Reactive Reactive	Reactive (Figure 2) Reactive (Figure 3)
Endotoxin Content Limulus Amoebocyte Lysate Assay ³	Report results	59.21 EU/mg
Filtration	0.2 μ m filter-sterilized	0.2 μ m filter-sterilized

¹Using a 1:1000 dilution of Monoclonal Anti-*Mycobacterium tuberculosis* HspX (BEI Resources NR-13814) as primary antibody and a 1:1000 dilution of HRP-conjugated goat anti-mouse IgG (R&D Systems HAF007) as secondary antibody

²Using a 1:1000 dilution of mouse monoclonal anti-histidine tag (R&D Systems MAB050) as primary antibody and a 1:1000 dilution of HRP-conjugated goat anti-mouse IgG (R&D Systems HAF007) as secondary antibody

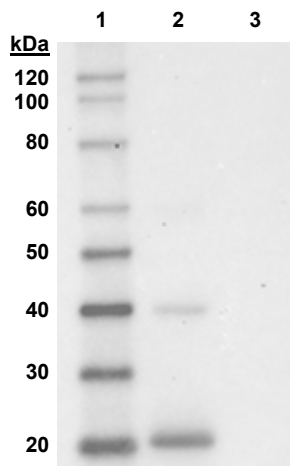
³Charles River Endosafe®-PTS Endotoxin Testing System (Charles River PTS200SF)

Figure 1: SDS-PAGE of HspX



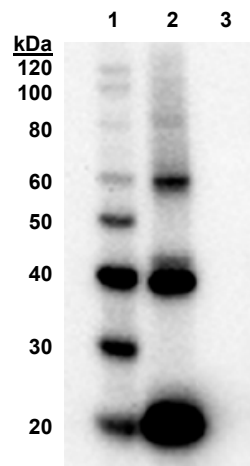
Certificate of Analysis for NR-61723

Figure 2: Western Blot with Monoclonal Anti-HspX



Lane 1: MagicMark™ XP Protein Standard
Lane 2: NR-61723, 0.5 µg
Lane 3: BSA, 0.5 µg

Figure 3: Western Blot with Monoclonal Anti-His



Lane 1: MagicMark™ XP Protein Standard
Lane 2: NR-61723, 0.5 µg
Lane 3: BSA, 0.5 µg

/Sonia Bjorum Brower/

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Technical Manager or designee, ATCC Federal Solutions

27 MAY 2026

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