

Plasmodium falciparum* Pfg27 Protein with C-Terminal Histidine Tag, Recombinant from *Escherichia coli

Catalog No. MRA-1274

Product Description:

A recombinant form of the Pfg27 protein containing an N-terminal maltose binding protein (MBP) and a C-terminal histidine tag was expressed in *Escherichia coli*. The protein was purified using nickel affinity chromatography, and the MBP fragment was removed with Factor Xa. The resulting histidine-tagged protein was repurified by cobalt affinity chromatography and passed through Amylose resin.

Lot: 70062919

Manufacturing Date: 18MAR2024

| TEST | SPECIFICATIONS | RESULTS |
|---|---|---|
| Appearance | Clear and colorless | Clear and colorless |
| Purity by SDS-PAGE Densitometry Scan | Protein band of interest represents > 90% of total staining intensity | Dominant band of ~ 30 kDa accounts for > 90% of total staining intensity (Figure 1) |
| Concentration by Bradford Assay Bovine Serum Albumin (standard) | Report results | 0.32 mg/mL |
| Vial Contents Amount per vial Volume per vial | Report results Report results | 216 µg 675 µL |
| Identification by Western Blot Monoclonal anti-histidine tag ¹ Monoclonal anti-MBP ² | Reactive Non-reactive | Reactive (Figure 2) Non-reactive (Figure 3) ³ |
| Endotoxin Content (Limulus Amoebocyte Lysate Assay) | Report results | <15.8 EU/mg |
| Filtration | 0.2 µm sterile-filtered | 0.2 µm sterile-filtered |

¹His Tag Antibody, Monoclonal Mouse IgG1 (R&D Systems® Catalog No. MAB050) (1:5000 dilution).

²Anti-MBP antibody (New England Biolabs® Inc. Catalog No. E8032S) (1:50,000 dilution).

³A very faint signal around ~70kDa could be detected in the Western Blot.

Figure 1: SDS-PAGE Analysis

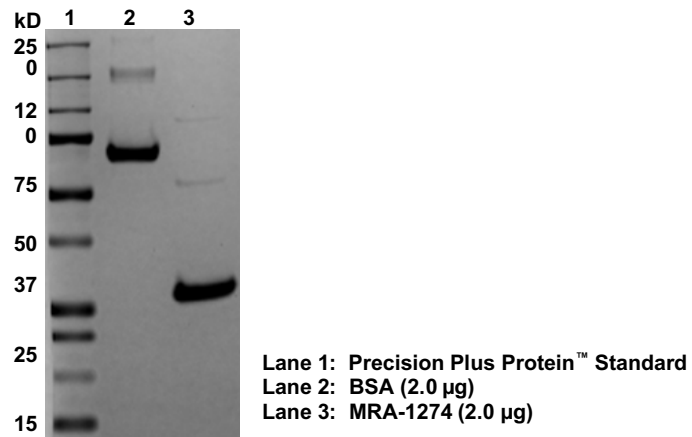
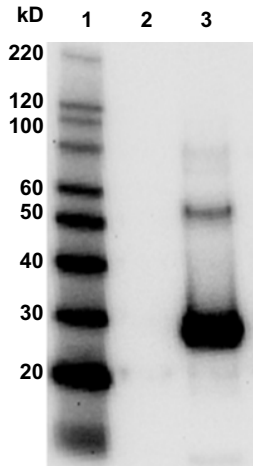
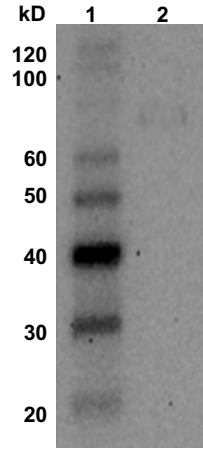


Figure 2: Anti-Histidine Tag Western Blot



Lane 1: MagicMark™ XP Protein Standard
 Lane 2: BSA (0.25 µg)
 Lane 3: MRA-1274 (0.25 µg)

Figure 3: Anti-MBP Western Blot



Lane 1: MagicMark™ XP Protein Standard
 Lane 2: MRA-1274 (0.05 µg)

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Technical Manager or designee, ATCC Federal Solutions

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