

**Glycoprotein from Lassa Virus, ISTH-2018-014, Recombinant from Baculovirus**

**Catalog No. NR-51469**

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

**Product Description:**

A recombinant form of the glycoprotein complex (GPC) from Lassa virus (LASV), ISTH-2018-014 (GenPept: [AZI96346](#)) was produced in Sf9 insect cells using a baculovirus expression system, purified by nickel affinity chromatography under denaturing conditions and refolded by direct dilution.

**Lot: 70020481**

**Manufacturing Date: 31OCT2019**

TEST	SPECIFICATIONS	RESULTS
<b>Appearance</b>	Clear and colorless	Clear and colorless
<b>SDS-PAGE Analysis</b>	Protein band of interest represents > 90% of total staining intensity	Protein bands of interest [unglycosylated, glycosylated (~ 70 kDa) and aggregate] represent > 90% of total staining intensity (Figure 1) <sup>1</sup>
<b>Protein Concentration by Bradford Assay</b> Bovine Serum Albumin (standard)	Report results	51 µg per mL
<b>Final Product</b> Amount per vial Volume per vial	Report results Report results	51 µg 1 mL
<b>Functional Activity by Western Blot Analysis</b> Monoclonal anti-histidine tag <sup>2</sup> Polyclonal anti-Lassa virus <sup>3</sup>	Reactive Reactive	Reactive (Figure 2) Reactive (Figure 3)
<b>Endotoxin Content</b> Limulus Amoebocyte Lysate Assay <sup>4</sup>	< 1000 EU per mg	34.31 EU per mg
<b>Filtration</b>	0.2 µm sterile-filtered	0.2 µm sterile-filtered

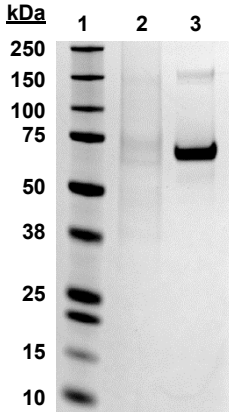
<sup>1</sup>The recombinant protein migrated to a slightly larger size than was expected, likely caused by glycosylation common in recombinant GPCs derived from arenaviruses. For more information, please see Amanat, F., et al. "Antibodies to the Glycoprotein GP2 Subunit Cross-React between Old and New World Arenaviruses." *mSphere* 3 (2018): e00189. PubMed: 29720525.

<sup>2</sup>R & D Systems® Cat. No. MAB050 (IgG1) (1:1000 dilution)

<sup>3</sup>BEI Resources NR-48962 (1:1000 dilution)

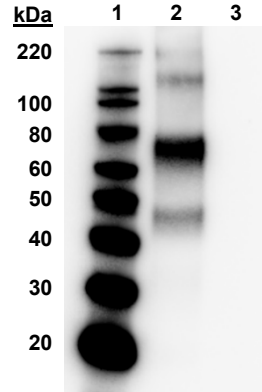
<sup>4</sup>Endosafe PTS Cartridge, Charles River Laboratories, Inc., catalog no. PTS2005F

Figure 1: SDS-PAGE Analysis



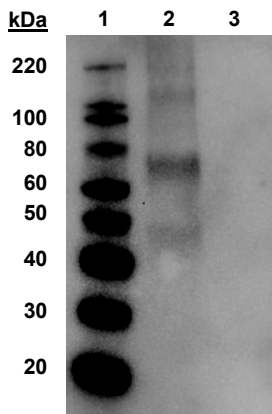
Lane 1: Precision Plus Protein™ Standard  
Lane 2: NR-51469 (1 µg)  
Lane 3: BSA (1 µg)

Figure 2: Anti-Histidine Western Blot Analysis



Lane 1: MagicMark™ XP Protein Standard  
Lane 2: NR-51469 (0.5 µg)  
Lane 3: BSA (0.5 µg)

Figure 3: Anti-Lassa Virus Western Blot Analysis



Lane 1: MagicMark™ XP Protein Standard  
Lane 2: NR-51469 (0.5 µg)  
Lane 3: BSA (0.5 µg)

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

25 FEB 2020

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