

# **Certificate of Analysis for NR-14870**

# **Ag85B Recombinant Protein Reference Standard**

### Catalog No. NR-14870

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

**Product Description:** NR-14870 is a recombinant form of the antigen 85 complex B (Ag85B) protein. The recombinant protein consists of the native protein sequence in addition to a hexahistidine tag. The recombinant protein was expressed in *Escherichia coli* and purified using standard chromatographic techniques followed by endotoxin removal procedures.

Lot: 62187650 Manufacturing Date: 23MAY2011

Production and QC testing were performed by Colorado State University. The Colorado State University documentation for bulk lot 11.rEC.4.4.hly.Ag85B is attached. The bulk lot was received as a lyophilized powder from CSU and was rehydrated in 10 mM ammonium bicarbonate at ATCC. Approximately 1 mL of a 1 mg/mL solution was dispensed per vial, yielding a final amount of 1 mg per vial.

Note: Lot 62187650 is provided as a frozen liquid and not as a lyophilized solid as were previous lots of NR-14870.

ATCC<sup>®</sup>, on behalf of BEI Resources, hereby represents and warrants that the material provided under this certificate has been subjected by the contractor 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<sup>®</sup>'s knowledge.

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### HHSN272201000027C

# Recombinant Protein Production and Quality Control Record

#### **General Information**

BEI Catalog number: NR-14870

ATCC Lot number: 60209908

CSU Lot Number: 11.rEC.4.4.hly.Ag85B

### **Production Information**

Date Production Started: April 4, 2011

Notebook Number and Page Number: Business HLY #1, p. 21-55

Production from Seed Culture/ Clone: no

Production from freshly-transformed Cells: yes

Host Strain used for Gene Expression: E. coli BL21 (DE3) pLysS

Recombinant Plasmid possessing the Recombinant Gene: pET-23b

Culture Type? Shake Flask Stationary Fermentor X

Culture Size: 5L

Culture Medium: HyperBroth (Athena Enzyme Systems)

Selection (Antibiotic/ Concentration): Amp<sup>100</sup>Cam<sup>34</sup>

Time and Temperature of culture prior to Induction: 3:38, 37.1°C

Final Concentration of IPTG added for Induction: 0.5 mM

Method for Lysis of Cells: Probe Sonication

Protein Purification Procedures: His-bind Resin Purification

Date Production Finished: May 23, 2011

### **NOTES ON PURIFICATION:**

Cells were sonicated on ice with 60 second bursts followed by 90 second intervals. His-bind resin purification per Novagen except for additional Endotoxin (ET) removal steps.

ET removal done by washing column with 10 column volumes (CV) of 10 mM Tris-HCl, followed by 10 CV of 0.5% ASB-14. This was again followed by 10 CV of 10 mM Tris-HCl and eluted with 5 CV of 10 mM Tris-HCL+ 1 M Imidazole. All buffers were pH= 8.0. Wash fraction was dialyzed into Bind Buffer and passed over column a second time.

Eluted proteins were exchanged into 10 mM Ammonium Bicarbonate.

## **Quality Control**

Method for Determining Protein Concentration: BCA (Pierce)

Final Protein Concentration: 0.387 mg/mL

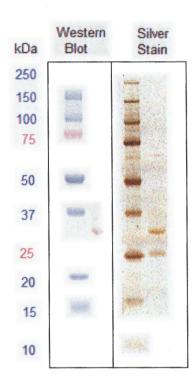
Performed Endotoxin Removal? yes

Endotoxin Contamination: 7.14 ng/mg

Purity confirmed by SDS-PAGE and Silver Staining (see below)

Identity confirmed by Western Blot: X or Mass Spectrometry: (see below)

Antibody used for Western Blot: <u>IT-44 α-Ag85 Monoclonal</u>



Aliquot Information: 1 × 50.3 mg

horylangyarg Date: 01/12/2012Date: 01/13/2012Producer's Name:

Supervisor's Name: //a/