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Datasheet for 200-401-M61

E.coli Combined HCP Antibody

Overview

Description:	Anti-E.coli Combined Host Cell Protein (HCP) Antibody - 200-401-M61
Item No.:	200-401-M61
Size:	100 µg
Applications:	2D-PAGE, ELISA, WB
Reactivity:	E. coli
Host Species:	Rabbit

Product Details

Background:	Anti-Host Cell Proteins Antibody recognizes high and low molecular weight protein fractions from E.coli. This antibody has been validated by 2D electrophoresis western blot to assure highest possible coverage of E.coli HCP. Host Cell Proteins are process-related impurities derived from a host cell expression system that may be present in trace amounts in a final drug substance. HCP Antibodies are used to detect impurities in biologically-based therapeutics. Detecting impurities often unseen by 1-D electrophoresis, a 2D electrophoresis western blot analysis delivers more complete insight into the immunocoverage of protein components of the host cell lysate.
Synonyms:	Escherichia coli Host Cell Protein antibody, rabbit anti-HCP antibody, rabbit anti-E.coli HCP antibody
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Reactivity:	E. coli
Immunogen Type:	Native Protein
Immunogen:	Anti-Host Cell Proteins Antibody was prepared by repeated immunizations with a full range of high molecular weight (HMW) and low molecular weight (LMW) proteins from E.coli (BL21).

Purity/Specificity:	Host Cell Protein A purified antibody is directed against high molecular weight and low molecular weight E.coli Host Cell Proteins. The product was purified from monospecific antiserum by Protein A affinity chromatography. Reactivity is directed against E.coli Host Cell Proteins. Cross-reactivity with other species is likely but has not been determined. Reactivity against homologues from other sources is not known.

Application Details

Tested Applications:	2D-PAGE, ELISA, WB
Application Note:	Anti-Host Cell Proteins Antibody detects over 300 E.coli proteins and has been tested by 2D-Page, western blotting, and ELISA.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:1000-1:2000
WB:	1:500-1:1000

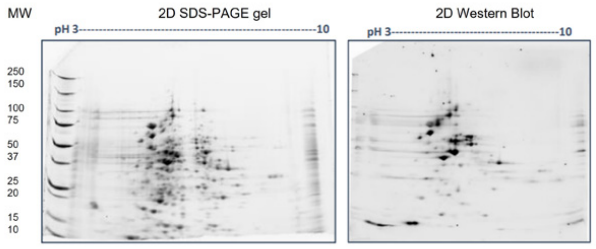
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.02mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

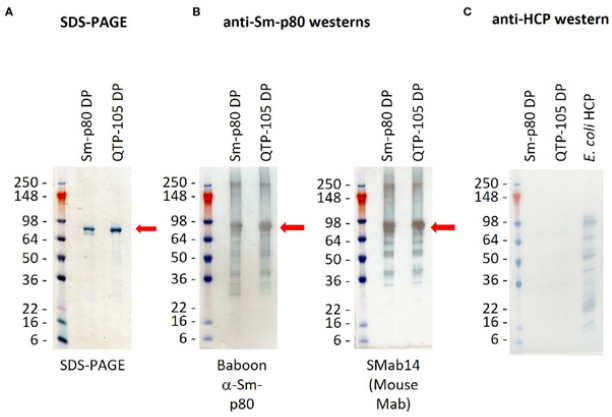
Shipping Condition:	Dry Ice
Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



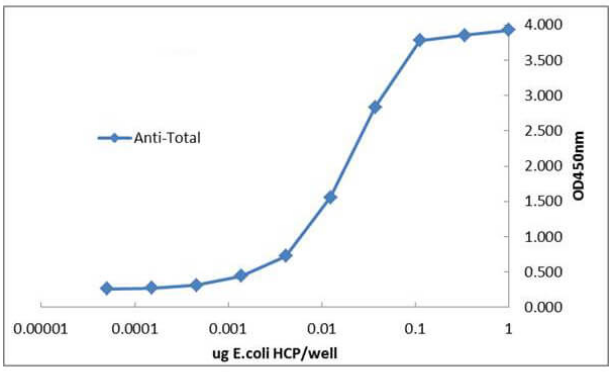
2D PAGE

2D SDS-PAGE:
Load/Strip: 100µg E. coli HCP total lysate/strip.
2D Oriole stained gels.
Western Blot of Anti-E.coli Total Host Cell Protein antibody:
Primary antibody: Rabbit Anti-E.coli Total Host Cell Protein at 1:500 overnight at 2-8°C.
Secondary antibody: Goat anti-Rabbit IgG Cy5 Conjugated (p/n 611-110-122) at RT for 2hrs.
Block: Blocking Buffer (p/n MB-070) for 1 hour at RT.



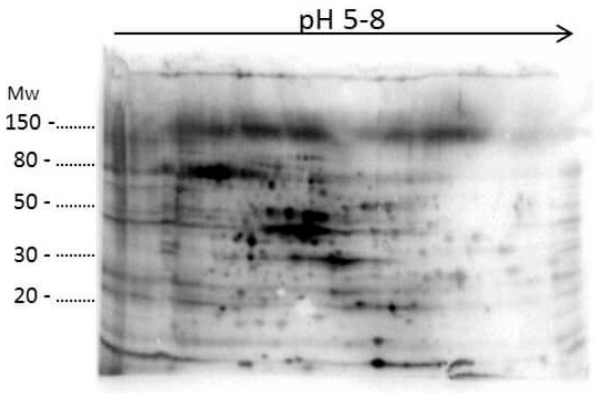
Western Blot

SDS-PAGE gel (A) and western blots (B, C) confirming identity and purity of Sm-p80 protein in Sm-p80 DP and QTP-105. Gels were transferred onto membranes before incubation with primary and secondary antibody dilutions according to methods. Sm-p80 protein was identified by use of immunized baboon sera and a monoclonal mouse antibody (SMab14) (B), and absence of E. coli host cell proteins was verified for purity (C). Sm-p80 bands are indicated with red arrows. Pictures were taken within 5 minutes of termination of TMB-HRP reaction. Fig 2. PMID: 39483645



ELISA

ELISA of Rabbit Anti-E.coli Host Cell Protein Antibody. Antigen: Total HCP protein. Coating amount: 0.1 µg per well. Primary antibody: E.coli HCP antibody at 10 µg/mL. Dilution series: 2-fold. Mid-point concentration: 5 ng/mL HCP antibody. Secondary antibody: Peroxidase rabbit secondary antibody at 1:20,000. Substrate: TMB (p/n TMBE-0100).



Western Blot
2D Western Blot of anti-E.coli Host Cell Protein antibody. Load: 35 µg Total HCP. Primary antibody: Rabbit anti-HCP antibody at 1:200 for overnight at 4°C. Secondary antibody: Goat anti-rabbit secondary antibody at 1:10,000 for 30 min at RT. Block: MB-070 for 1 hour at RT.

References

- Saravanan N et al. A Next-Generation Human Lymphatic Filariasis Vaccine Candidate, r Bm HAXT, for Clinical Development. *Res Sq [Preprint].* (2025)
- Kim J et al. An assessment of a GMP schistosomiasis vaccine (SchistoShield®). *Front Trop Dis.* (2024)

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